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REPORTS
FROM
COMMITTEES:
SIXTEEN VOLUMES.

—(13.)—

SALMON FISHERIES.

Session
24 January—28 August 1860.

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N.B.—*THE* Figures at the beginning of the line, correspond with the N° at the foot of each Report; and the Figures at the end of the line, refer to the MS. Paging of the Volumes arranged for the House of Commons.

SALMON FISHERIES:

456. REPORT from the Select Committee of the House of Lords appointed to inquire whether, having regard to the Rights of Property of the Crown and Individuals in SALMON FISHINGS on the Sea Coasts and in Rivers and Estuaries in SCOTLAND, it is just and expedient that any and what Legislation should take place for the Regulation of such Fishings, &c.; together with the PROCEEDINGS of the COMMITTEE, MINUTES of EVIDENCE, APPENDIX, and INDEX - - - - - p. 1.
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R E P O R T

FROM THE

SELECT COMMITTEE OF THE HOUSE OF LORDS,

APPOINTED TO INQUIRE

Whether, having regard to the Rights of Property of the Crown and Individuals in Salmon Fishings on the Sea Coasts and in Rivers and Estuaries in Scotland, it is just and expedient that any and what Legislation should take place for the Regulation of such Fishings so far as regards the Use or Prohibition of Bag Nets, Stake Nets, Cruives, and other fixed Nets and Engines, and so far as regards Close Times or otherwise ;

AND TO REPORT TO THE HOUSE ;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE,

MINUTES OF EVIDENCE,

APPENDIX AND INDEX.

*Ordered, by The House of Commons, to be Printed,
16 July 1860.*

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R E P O R T.

BY THE SELECT COMMITTEE appointed to inquire, Whether, having regard to the Rights of Property of the Crown and Individuals in SALMON FISHINGS on the Sea Coasts and in Rivers and Estuaries in Scotland, it is just and expedient that any and what Legislation should take place for the Regulation of such Fishings, so far as regards the Use or Prohibition of Bag Nets, Stake Nets, Cruives, and other fixed Nets and Engines, and so far as regards Close Times or otherwise; and to Report to the House;—and to whom was referred the Copy of the Minutes of Evidence taken before the Committee of the House of Commons on the Tweed River Fisheries Bill (1857), and Tweed Fisheries (communicated to this House on the 14th of May last); and to whom was also referred the Petition of the Proprietors of Salmon Fisheries on the Forth, its Estuary and Branches, in Special General Meeting assembled, for the Amendment of the Law respecting Salmon Fisheries, Scotland.

ORDERED TO REPORT,

It appeared to the Committee that in prosecuting the inquiry which they have been appointed to make, the most convenient course to pursue would be, in the first place, to procure a clear view of the law affecting Salmon Fisheries in Scotland, and then to ascertain what statutory provision it would be desirable to make in order to improve those fisheries.

Accordingly the Committee obtained the evidence of the First Law Officer of the Crown in Scotland as to the nature of the original title of the Crown to all salmon fishings in Scotland, as to the mode by which a right to a salmon fishery may be acquired by a subject, and as to the statutory restrictions on the exercise of such rights which have been imposed by the Legislature.

The Committee afterwards took the evidence of witnesses who are of opinion that the modes of fishing which are the special objects of the present inquiry, viz, stake nets, bag nets, cruives, and other fixed nets, and engines, should be prohibited. They then examined witnesses who consider that no such prohibition is necessary; and they also took evidence as to the working of the Acts of Parliament which have been passed for the regulation of Salmon Fisheries in Ireland.

Most of the witnesses examined concur in advising an alteration in the present annual close time, or period during which the capture of salmon is illegal.

The Committee propose, in the first place, to advert to the law upon the subject of Salmon Fisheries in Scotland as laid down in decisions of the House of Lords and the Court of Session, and as explained by the Lord Advocate, then to state succinctly some of the principal facts, arguments, and opinions which were laid before them in regard to the use or prohibition of fixed nets or engines; and as to an alteration of the existing close times, afterwards to notice the result of the legislation which has taken place for the Irish Salmon Fisheries, and then to submit the amendments of the existing state of the law which they think it will be desirable to make for the improvement of the Salmon Fisheries of Scotland.

First. As to the law affecting Salmon Fisheries in Scotland:

By the law of Scotland the right of salmon fishing is *inter regalia*, and is vested in the Sovereign, *jure coronæ*. The salmon is not, however, like the whale or sturgeon, a royal fish, so as to give the Crown an actual right of property in every salmon that is caught; but the right of the Crown is to the

1, 2.

The Lord Advocate
and Gammell, *vide*
Appendix.

salmon fishings in Scotland, which, as observed in a case that lately came before the House of Lords in its judicial capacity, "appears to be a common and well understood description of the subject of claim."

111, 112.

Salmon fishings have from a very early period been the subject of grants by the Crown; and the fishings in rivers, which yet remain vested in the Sovereign, are probably not of great extent.

128—190.

The grants by the Crown of salmon fishings in the sea are not so numerous as those of fishings in rivers; and although some grants have been made of fishings in the sea there appears to be altogether a considerable extent of coast upon which the salmon fishings still belong to the Crown.

125.

Up to the year 1832 the hereditary revenues of the Crown in Scotland were under the charge of the Barons of the Scotch Court of Exchequer, but under the provisions of the Act 2 & 3 Will. 4, c. 112, the management of those revenues was transferred to the Commissioners of Woods. No leases by the Crown

126.

of salmon fishings in the sea were current at the time of the transfer, but an application for a lease having been made to the Commissioners in 1845, they

155.

caused the subject to be investigated, and in accordance with the advice of the law officers of the Crown in Scotland, five leases were granted of salmon

129.

fishings on the sea coast; the granting of further leases was stayed by reason of the resistance to the rights of the Crown which was made by some proprietors on the coast, and in 1849 three actions were raised by the Crown officers in the Court of Session for the establishment of those rights, one of such actions being against a gentleman named Gammell in respect of some salmon fishings at Portlethen in the county of Kincardine, and the remaining actions being raised against the claimants of salmon fishings in the Bay of Thurso, in Caithness. The proceedings in the latter actions were postponed until the case of Gammell had been disposed of; Mr. Gammell pleaded defences to the action, two of which were that he, being the proprietor of lands erected into a barony, the right of salmon fishing in the adjoining water was attached thereto; and secondly, that the right of salmon fishing in the sea did not belong to the Crown as part of its hereditary revenue; by arrangement, the second point was the first argued before the Lord Ordinary, who decided it in favour of the Crown, and on appeal the interlocutor of the Lord Ordinary was affirmed, all the consulted judges, with the exception of the Lord Justice Clerk being of opinion that the right to salmon fishings around the sea coast of Scotland was vested in the Crown, and as part of its hereditary revenues; that decision was affirmed by the House of Lords on the 28th March 1859; and it may now be taken to be settled law that throughout the realm of Scotland, whether in the sea within three miles of low water-mark, or in rivers and estuaries, the right to salmon fishings is vested in the Crown, subject to such rights as subjects have lawfully acquired by grant from the Crown, or by prescription; a copy of the opinions of the noble lords who were present when the judgment of the House was given, will be found in the Appendix.

Judgment in the
Lord Advocate *v.*
Gammell.

129.

Before leaving this part of the subject, it may be convenient to add that since the above decision of the House of Lords, Mr. Gammell submitted to a judgment being entered for the Crown, on his plea that the title to a barony gave him the right to the salmon fishings in the sea adjacent to it, and that the Commissioners of Woods have taken steps to ascertain what salmon fishings on the sea coast belong to the Crown, and what fishings are held by subjects under valid titles; circulars on the subject have been sent to about 345 proprietors; the investigation is however as yet incomplete, owing to the number and extent of the cases for enquiry, but 23 proprietors in addition to the five persons to whom leases were granted in 1848, have already agreed to take leases from the Crown of the salmon fishings in the sea adjacent to their estates. With the view of preventing those leases being used as obstacles to any regulations which the legislature may think proper to make for the improvement of the fisheries, the term granted has been limited to the seasons of 1859, 1860, and 1861, and it is expressly provided that the lessees shall hold subject to such restrictions as Parliament may think fit to impose.

90. 134.

90.

190.

180. 134.

The nature of the title of the Crown to salmon fishings in Scotland being that which has been above described, and being vested in the Crown, not merely as trustee for the public, as has been contended, but as part of its
patrimonial

patrimonial estates, it is next to be considered how the right to any particular salmon fishing may be acquired by a subject. Such a right may clearly be obtained by an express grant from the Crown; and it has been stated to the Committee by the Lord Advocate, that if there be a title from the Crown "*cum piscationibus*," followed by a possession of salmon fishings by the use of a net and coble, cruive, yair, or other mechanical contrivance, for 40 years, a prescriptive right to salmon fishings would be acquired, but that rod or spear fishing will not be sufficient to found a prescriptive title. 4, 5.

It has been proved in evidence that many grants of salmon fishings in the sea, and in estuaries in Scotland, were made by the Crown before the transfer of the management of the Crown property to the Commissioners of Woods, and the list of such grants which was produced to the Committee probably does not contain references to nearly all the grants which have been made, or titles which could be maintained against the Crown. 128. 128. 19

The statutory restrictions on the salmon fishings in Scotland, as regards the use of fixed engines, may be considered, first with reference to rivers above the flow of the tide, that is to say, from the source down to the place where the flow and ebb of the tide is perceptible; secondly, with respect to that portion of rivers which is within the ebb and flow of the tide; and lastly, with reference to the sea coast.

The general statutes by which these restrictions were imposed are very numerous; they commence with an Act of Robert the First (1318), chap. 12. 8.

Copies of the several Acts will be found in the evidence of the Lord Advocate. The Committee gather that the effect of those statutes as regards the use of fixed engines, is shortly as follows:— 8.

1. Cruives are legal from the source of a river down to the point where the flow and ebb of the tide begins, provided the person using such an engine has an express grant from the Crown of the privilege of fishing in that manner, has exercised that privilege, and observes the regulations of the statutes as to cruives, the principal of which are that they shall be kept open from Saturday till Monday, and that the hecks or bars of the cruive boxes shall not be less than three inches apart. 8. 58.

2. Cruives, yairs, and all other fixed engines, are illegal in a river from the point where the flow and ebb of the tide begins down to the sea. 8. 58. 4106.

3. Fixed nets are not illegal on the sea coast, and a person having a grant of salmon fishings on the sea coast cannot be interdicted under the statutes by another proprietor of salmon fishings or be prevented by the Crown from using such nets. 58.

It is necessary to state that these statutory provisions as to fixed engines do not apply to the Solway, or the rivers flowing into it, or to the Tweed. Those waters, not being wholly in Scotland, have formed the subject of separate legislation, which will be afterwards adverted to.

The question as to the extreme limit of a river towards the sea, within which the prohibitions against fixed engines apply, is one which must be determined by a jury in each case as it arises; and a variety of circumstances would have to be taken into consideration varying with the locality; so that the result in one case would be but little guide towards a sound conclusion in another. 58. 59.

With respect to the annual close time, or period, within which it is illegal to take salmon. By an Act of the Scottish Parliament, passed in 1424, it was forbidden that any salmon be slain from the Feast of the Assumption of our Lady until the Feast of St. Andrew in winter. The dates of these feast days being corrected according to the new style, the close time established by the Act of 1424 was, from the 15th of August until the 30th of November (N. S.). But by the Act 9 Geo. 4, c. 39, commonly called The Home Drummond Act, the annual close time was altered, so as to last from the 14th of September until the 1st of February. The Act does not apply to the Solway or its tributaries, or to the Tweed; and the close time in the Tay was, by the Tay Fisheries Act of 1858 enlarged, so as to commence on the 26th of August, and to end

end on the 1st of January ; with these exceptions, the annual close time for salmon fishing in Scotland is still regulated by the Act of 1828.

45 Geo. 3, c. 45.
Local and personal.

The salmon fisheries in the Solway are regulated by the Act of 45 Geo. 3, c. 45, by which the close time is established to be from the 25th of September until the 31st of December. The Act (sec. 15) regulates the use of fixed nets and engines. A subsequent Act, 4 Vict. c. 18, has been passed for regulating the fisheries in one of the tributaries of the Solway, the river Annan.

The Tweed Fisheries
Act of 1857. 1859.

The salmon fishings in the Tweed are now regulated by the Tweed Fisheries Acts of 1857 and 1859. By those Acts, close time in the Tweed begins on the 14th of September, and lasts to the 15th of February. Fixed nets and engines are prohibited in the Tweed and on the shore, within five miles to the south and four miles to the north of the mouth of that river ; and such nets and engines are regulated beyond the former limits, to a further distance of two miles to the south, and to the boundary between Berwick-on-Tweed and Scotland on the north. Many other provisions are made in those Acts for the improvement of the fisheries in the Tweed ; the valuable evidence given before the Committees of the House of Commons on those measures has been communicated to the Committee, and has been considered by them.

Having thus referred to the existing state of the law affecting salmon fisheries in Scotland, it only remains to notice (before adverting to the other evidence submitted to the Committee) the public inquiries which have taken place into the subject of those fisheries, with a view to their improvement.

In the year 1824 a Committee of the House of Commons was appointed to consider the state of Salmon Fisheries in the United Kingdom, and that Committee made two Reports, one being dated 30th of March 1825, and the other bearing date the 3d of June in that year. The Committee found that the fisheries had decreased, and were likely still further to fall off, that the annual close time should be extended ; that there ought to be regulations established to prevent mill streams being injurious to the fisheries, and they made various other suggestions for their improvement.

No legislation immediately took place, but in 1828 the Home Drummond Act passed, to which reference has been already made.

In 1836 the House of Commons appointed another Committee to inquire into the state of Salmon Fisheries in Scotland, and that Committee reported on the 30th June 1836. They recommended that instead of one uniform annual close time, there should be close times varying according to the circumstances of each river ; that the weekly close time should be enforced ; that cruives should be subjected to further regulations, and some other provisions were advised for the improvement of the fisheries. The Committee stated that they had instructed their Chairman to move for leave to bring in a Bill to carry out their recommendations, but no such Bill ever passed the Legislature.

Since that period the Local Acts have been passed regulating the fisheries in the Rivers Tay, Tweed, and Annan, to which reference has already been made.

159.

In the present Session two local Bills were introduced respecting salmon fishings in Scotland. One of such Bills being for the regulation of the salmon fisheries in the Thurso River, and on the sea coast adjoining, the other for the regulation of the salmon fisheries in and adjacent to the Rivers Ness and Beauly. The Thurso Fisheries Bill proposed to regulate bag and stake nets on each side of the mouth of the river, while the Ness and Beauly Fisheries Bill proposed to abolish bag and stake nets altogether. The Ness and Beauly Bill passed the House of Commons, and is now waiting for Second Reading in the House of Lords. The Bill, as amended in the House of Commons, made the close time in the Rivers Ness and Beauly to last from the 12th of August until the 1st of January. The Thurso Bill was withdrawn in the House of Commons. Upon the introduction of the Ness and Beauly Bill into the House of Lords, it was felt that the subject was one of much importance, and the House of Lords appointed the present Committee to inquire into the subject to which the Bill related, as affecting the whole of Scotland, with a view to ascertain whether any amendment in the existing state of the law is required.

With

With this explanation of the circumstances which in a great measure led to the present inquiry, the Committee proceed to state the effect of the evidence which has been submitted to them upon the practical portion of the question, apart from the law and Acts of Parliament affecting the subject, and in so doing it will be convenient to adhere to the course pursued in taking the evidence, viz., first, to refer to the evidence against fixed nets and engines; then to that in their favour; afterwards to the evidence on the subject of the close times, and, lastly, to notice the working of the Irish Fishery Acts.

First. The evidence in favour of the abolition of bag and stake nets, cruives, and other fixed engines.

The Committee apprehend that the first point to be established under this head must of necessity be, that the salmon fisheries of Scotland have declined, and that such decline is mainly attributable to fixed nets and engines. It is to be regretted that the absence of registers of the quantity of fish taken throughout Scotland preclude any accurate statement being supplied of the annual take of salmon during the last 60 years, a period which is not too long for the purpose of arriving at a sound conclusion. Apart from the evidence of the quantity of salmon taken in certain fisheries in and at the mouths of the Rivers Dee and Don, and in the Tweed, to which reference will be afterwards made, the most satisfactory evidence of the annual productiveness of the Scotch Salmon Fisheries submitted to the Committee is that supplied by Mr. George Ridpath, a member of the firm of Messrs. Forbes, Stewart & Co., of Billingsgate Market. A statement put in by Mr. Ridpath, and which has been compiled as correctly as circumstances will admit (though probably not absolutely accurate), contains the number of boxes of salmon received in London from Scotland from the year 1834 to the year 1859, both inclusive. One witness stated that a cycle of nine years would fairly represent the average productiveness of salmon fisheries; another witness suggested a cycle of five or seven years; and taking the mesne between five and nine years, or a cycle of seven years, the following results may be deduced from the statement put in by Mr. Ridpath:—

1096, 1097.

512,
283.

AVERAGE ANNUAL QUANTITY OF SCOTCH SALMON sent to London, calculated in Cycles of Seven Years, beginning in 1834 and ending in 1858, both inclusive.

Years of Average.	Average Number of Boxes per Annum.	Average Price per Lb.
7 Years, beginning with 1834 and ending with 1840 -	26,107	d. 10 $\frac{1}{2}$
" " 1841 " 1847 -	29,011	8 $\frac{1}{16}$
" " 1848 " 1854 -	18,210	10 $\frac{1}{2}$
5 Years " 1855 " 1859 -	17,896	11 $\frac{1}{2}$

It has been urged by one of the witnesses examined before the Committee, that because in 1834 there were 30,650 boxes of salmon sent to the London market, and in 1859 only 15,823, therefore Scotland only supplies about one-half the quantity of fish for the London market which it did in 1834; but such a statement does not fairly represent the average quantity of salmon annually forwarded to London, and is calculated to mislead. It appears that in 1838 there were 21,400 boxes of salmon sent to London, and that in 1858 there were 21,564 boxes forwarded, from which, by the mode of deduction referred to above, it might be assumed that the fisheries were more productive in 1858 than they were 20 years previously. In order to arrive at a fair result, it is necessary to take an average extending over several years.

Pamphlet of Mr.
Jopp. 194.

1097.

283.
512.

The Committee have been informed that, although the average value of salmon in the London market has not greatly risen in the five years ending in 1859 as compared with the seven years ending in 1840, the price has become much

1097.

(135.)

a 4

804. much higher in Scotland than it was, and looking to the large facilities of communication which have been established during that period, and to the increased supply of salmon which has been sent to London from Ireland, Holland, and Wales, it is probable that no sound conclusion can be deduced from the fact that the price in London has not greatly increased.

It appears, however, to be clear that the average quantity of Scotch salmon annually sent to London was less, by nearly a third, during the five years ending with 1859 than during the seven years ending with 1840. But on the other hand, although stake and bag nets had been in operation for some years before 1840, it seems that in the seven years ending with 1847 there was an average annual increase of nearly 3,000 boxes of salmon sent to the London market, over the average sent in the preceding seven years.

It is to be regretted, that no similar Returns to those furnished for the period from 1834 to 1859 could be supplied in reference to a similar period before the passing of the Home Drummond Act in 1828, by which an alteration in close time was made which is condemned by nearly every witness examined before the Committee. It is difficult, if not impossible, to ascertain to what extent that alteration may have been injurious to the fisheries, and may have occasioned a consequent diminution of supply to the London market.

From the evidence taken before the Committee on the Tweed Fisheries Bills in 1857 and 1859, and from their Reports, it appears that there was a very large diminution in the take of salmon in that river between 1808 and 1856; that in the former year, the estimated number of salmon taken was 37,333, while in the latter, it had fallen off to 4,885. The Committees were satisfied that fixed nets and engines were among the causes which had led to the decline of the fisheries; they, therefore, approved of their abolition.

Mr. Jopp's pamphlet.

194.
604.

Evidence has also been given before the Committee, showing that fishings in the Rivers Dee and Don, and at the mouths of those rivers, have greatly fallen off. As an illustration of which it may be mentioned, that in the Raik fishings in the Dee there is stated to have been a diminution of 170 barrels in the average annual take of salmon during the last 38 years, as compared with the previous 38 years. The annual average for the latter period being 472 barrels, and for the former 302 barrels only. The decline appears to have been progressive, and to have been in the weight, as well as in the number of fish taken; so also in the Don. It is stated that in the Nether Don fishings, there has been an average annual deficiency of 313 barrels during the last 35 years, as compared with the previous 35 years; the average quantity being respectively, 250 barrels and 564 barrels; and that in the Don cruive fishings, there has during the last 38 years, been an average deficiency of 136 barrels, as compared with the average quantity of fish annually caught in the preceding 38 years; the annual averages being about 30 barrels and 166 barrels. These results are attributed by the clerk to the heritors of fishings in the Rivers Dee and Don, mainly to the use of bag and stake nets on the sea coast, and that gentleman stated, that in his opinion, the heritors on the Don would consent to abolish their cruive provided bag and stake nets were abolished also.

236.

1201.

1205.

It was further proved that, in the Rivers Ness and Beauly, a great decline in the productiveness of the fisheries has taken place; that in the Beauly, from 1809 to 1818, both inclusive, there were 30,823 salmon and 54,352 grilse taken; while from 1849 to 1858, both inclusive, there were only 8,708 salmon and 43,700 grilse taken in the same river. It was also stated that four cobbles fishing in the River Ness, which, in 1794 were let at 211 *l.* each, were let in 1836 at 40 *l.* each; and that from the year 1843 to 1857, the same fishings were worked by the tenant at an average annual loss, after payment of rent and expenses, of 71 *l.* 1 *s.* 8 *d.*

198. 395.
448. 610.
673. 674.
811. 956.
679.

Several other witnesses were examined before the Committee, who stated that, in their opinion, the salmon fisheries had greatly fallen off, and they assigned as the principal cause of such decline, the use of fixed nets and engines. They asserted that bag and stake nets not only take a great number of salmon that are on their way to the rivers to spawn, but that they divert many others from their course and drive them out to sea. That when salmon come

come in a shoal seeking the mouth of a river, they strike the leader of the net ; that some find their way along the leader into the chamber of the net, where they are caught, but that others fly back, and the remainder go out to sea. That bag nets are sometimes fastened to the end of stake nets, so as altogether to present a barrier to the passage of fish a mile in length. That one evil consequence of the salmon being driven out to sea by the fixed nets is, that they there fall a prey to porpoises and seals, which may sometimes be seen in great numbers off the bag and stake nets. That salmon caught in fixed nets are frequently much beaten about and injured before they are taken out. And further, that although the results of the use of fixed nets are so disastrous to the fisheries, the cost of them is much greater than that of fishing by net and coble in rivers ; so that, as stated by one witness, at the lowest calculation, it would require two fish to be killed in bag nets or stake nets for one in river nets, in order to produce the same amount of profit after the expenses are paid.

681.

971.

671.

The arguments urged against cruives are not in some respects so strong as those which have been advanced against the maintenance of stake and bag nets ; although presenting, except during a flood, an equally effectual barrier to the passage of salmon, cruive weirs do not, like fixed engines on the coast, drive out to sea the fish which cannot pass by them ; and, moreover, the owners of them are obliged to observe the Saturday slap or weekly close time, which is not observed in the case of the fixed nets on the coast. On the other hand, it was proved that in the River Don great numbers of salmon have been seen lying at the bottom of the cruive dyke, although the boxes had been removed ; that the fish were heavy with spawn, and could not get through the rush of water coming down into the pool below the cruive dyke.

586.

The evidence submitted to the Committee in favour of fixed nets, and against their abolition, was to the following effect :—

In the first place it was urged, that there was not any sufficient evidence that any decline in the salmon fisheries of Scotland is attributable to the use of fixed nets. One witness, indeed, went to the length of stating that, having regard to the produce of the sea as well as of the river fishings, he did not think there had been any falling off ; but the same witness recommended that fixed engines should be abolished in rivers and estuaries, but should not be interfered with on the sea coast. It was proved, however, that the take of salmon in some bag and stake net fishings near the mouth of the Tay, and at Banff and Tarbet Ness, has increased of late years.

1786.

1791.

1892.

1956.

2120.

It was contended that the decrease in the breed of salmon is owing to a general over-fishing, both in rivers and on the sea coast, and to the late commencement of close time since 1828. That the sweep nets used in rivers are far more destructive, or effective, than the fixed nets on the coast. That by means of the former the whole breadth of a river is swept ; that many smoults or salmon fry are taken in them and are destroyed, while very few are taken in stake and bag nets, to the seaward of which there is always a free passage for salmon and smoults. That the fish are frightened away more easily by a sweep net, or any other moving object, than by a stationary net. That the decreased supply of salmon may further be traced to the improved system of drainage and sewerage which has been introduced of late years, by which the rivers are much polluted, and to the refuse from saw mills, chemical, and other works and manufactories being allowed to escape into the rivers. That in many places the spawning beds are very insufficiently protected. That great injury is done by poachers. That the abolition of fixed nets and engines would in many rivers be of no practical avail, if some stringent regulations with respect to mill dams and leads were not established. That salmon caught in the sea is finer and will keep better than that caught in rivers ; that few of the fish so caught are injured to a greater extent than having some of the scales rubbed off. That the diminution of supply to the London market may be wholly or partially accounted for by the increased quantity sent to other places. That on many parts of the coast there are no effectual modes of fishing, except by fixed nets. That kelts, or spent fish, although taken in rivers, are seldom or never caught in the sea nets, which on the whole, without injuring the breed, provide a more regular supply, and of salmon in finer condition than that afforded by the river fishings.

1909.

1988.

1928.

1933.

1977. 1497.

1092.

1637.

1786.

1462, 1463.

1479. 1904.

2009.

1982.

1821.

1833.

2076.

The Committee proceed to notice the evidence which they have taken with respect to annual and weekly close times.

2100. Little difference of opinion appears to exist among the witnesses examined before the Committee as to the propriety of an earlier annual closing time for the net and cruive fishings than that which was established by the Home Drummond Act. Some witnesses consider that it will be sufficient if the period mentioned in the Act of 1424, viz., the 15th of August, is reverted to generally, as has already been done by the Local Act for the River Tay, to which reference 1082. has been made. Others recommend a still earlier day, and it was proved that in Ayrshire the adoption, in 1849, of the 10th of August as the day for closing the salmon fisheries, has been attended with very beneficial results. The most recent inquiry that has taken place was that before the Committee of the House of Commons, on the Ness and Beauly Fisheries Bill of the present Session. That Committee was satisfied that the 12th of August was not too early for closing the net fisheries, and they amended the Bill accordingly by inserting that day.

916, 961. Some witnesses, while advocating an earlier commencement of close time than that now established, are desirous that it should be made to cease earlier, and that salmon fishing should commence about the beginning of January, or in December: but that wish is not shared in by all the witnesses who recommend an earlier beginning of close time. It has been stated that there are many spawning fish in the rivers in January, and that the benefit of an earlier closing would, in a great measure, be lost if the fishing began earlier than it now does. Their evidence shows that at present there is much injury done by over-fishing, for which there can hardly be a more adequate remedy than an enlargement of the annual close time.

It has been submitted to the Committee that it would be desirable to have a varying annual close time to meet the circumstances of each river, but several witnesses of practical experience are in favour of one general close time for the whole of Scotland.

753. It has also been suggested that it would be desirable to extend the time for rod fishing beyond the season for net fishing, so as to give the upper river proprietors an increased inducement to protect the spawning beds, and in the hopes that the presence of legitimate anglers on the banks of rivers will keep away poachers; such a provision has already been adopted with regard to the Tweed.

Many witnesses contend that if fixed nets and engines are not to be wholly prohibited, there is no sound reason why the weekly close time should not be extended to them. Indeed, some contend not only that the weekly close time should be applied to all fishings, but that it should be enlarged so as to last 48 hours instead of 36. It has been said, that there would be great difficulty in the observance of a weekly close time with regard to bag nets, which are entirely in the sea below low water mark, on account of storms, in which it would be impossible to take up the chamber of the net; but such occasions would probably not be of frequent occurrence, and no great difficulty is now found in enforcing a weekly close time in the case of bag nets in Ireland, although it was not observed when first established. In the case of stake nets, which are placed on the shore between high and low water marks, and are dry at low water, it is not suggested that there would be any difficulty in the observance of a weekly close time.

With respect to the working of the Irish Salmon Fishery Acts, much useful information has been given to the Committee by Mr. Ffennell, one of the Commissioners of Fisheries in Ireland. The law with respect to the right to salmon fishings in Ireland, subject to certain statutory alterations, is similar to that which prevails in England. Since the passing of Magna Charta, the Crown, according to decisions of the English Courts, has not had the right to create a several or exclusive fishery in public waters in England, and as the provisions of Magna Charta were extended to Ireland, it follows that the Crown is under the same disability in that part of the United Kingdom, except so far as it has been removed by the recent statutes. Some several fisheries did exist in Ireland previously to the passing of the Act of 1842 for regulating the Irish fisheries, but their number was few, as compared with that of the exclusive fisheries by fixed

fixed engines, that have been established since the passing of that Act, which recognised the legality of those modes of taking salmon, except in certain specified localities. It appears by this evidence, that the existing Acts for the preservation of salmon in Ireland have worked well since the 14 & 15 Vict., which provided the necessary funds for enforcing their provisions, but that they would have worked better if stake and bag nets had not been allowed. Mr. Ffennell is decidedly of opinion that the introduction of bag and stake nets was an unfortunate thing for the salmon fisheries both in Scotland and Ireland. Much valuable evidence was given by that gentleman upon other points connected with the salmon fisheries in Ireland, and it is satisfactory to find that, since funds have been provided, the control exercised by the Commissioners of Public Works in Ireland over the salmon fisheries in that country has been of great advantage.

2498,

After giving their best consideration to the evidence submitted to them, the Committee are of opinion, that with a view to the improvement of the salmon fisheries in Scotland, all cruives and fixed engines, of whatever kind, both in the rivers and the sea, should be abolished; and, at all events, no new fixed engines, of any description, should be permitted to be erected.

If, however, it should not appear practicable to enforce such a comprehensive provision, with due regard to the rights of individuals, the Committee would recommend—

That the laws relating to the salmon fishings in Scotland should be amended in the manner following:

1. That a central board or commission be appointed to regulate the salmon fishings in Scotland.

2. That the salmon fishings be divided into districts by the central board. That a local board of conservators for each district be elected by the proprietors, with powers of assessment for payment of expenses, of appointing water-bailiffs, and making bye-laws; the proceedings of the district boards to be subject to control by the central board.

3. That stake and bag nets, and all other fixed engines, other than cruives already existing, shall be declared illegal in rivers and the estuaries of rivers, and that their use shall be prohibited within such distance of the mouth of every river and estuary as the central board may deem proper.

4. That the mouth of every river, and estuary of river, not already defined by the decision of a court of law, or by an Act of Parliament, shall be defined by the central board.

5. That the law which requires a free passage for salmon to be left in all mill dams and dykes should be enforced, and that powers should be given to the central board to carry the law into effect by an easy and summary process. That the central board have power to alter dams, or erect salmon ladders thereon, as also to erect salmon ladders where there are natural obstacles in a river.

6. That the central board should be empowered to regulate the mode in which sweep and other nets may be used, so that they shall not present a continuous obstruction to the passage of salmon.

7. That three or more persons illegally taking salmon at night, should be considered as guilty of a criminal offence, and punishable by summary process in the sheriff's court.

8. That the central board should have power to regulate the size of the meshes of all nets.

9. That the annual close time be from the 20th of August until the 1st of February. Rod fishing to continue till the 15th of October; but that no salmon, the produce of any fishing in Scotland, be sold after the 1st of September.

10. That the weekly close time, as regards cruives and nets, be from six on Saturday evening till six on Monday morning ; as regards rod fishing, from 12 on Saturday night till 12 on Sunday night, according to existing usage. That bag and stake nets be either subject to the weekly close time, or be wholly removed on the 20th of July for the annual close time.

11. That penalties, to be recovered by summary process, should be imposed for allowing any refuse matters to go from any mill or manufactory into any river ; for taking, or being in possession of, foul fish, or for using unlawful nets or engines. The water-bailiffs to have power to seize salmon taken in close time.

12. That the assistance of the county police and the coast guard should, where available, be obtained to enforce the provisions of the law for the protection of the salmon fisheries.

13. That the central board should be empowered to prosecute offenders.

14. That for the purpose of providing the funds necessary for carrying into effect the provisions of the proposed Bill, the several fisheries should be assessed, and that a duty be imposed on nets and on rods used in salmon-fishing.

The Committee further recommend that a Bill should be introduced by Her Majesty's Government in the next Session of Parliament, in conformity with the above Resolutions.

4th July 1860.

ORDER OF REFERENCE.

Die Jovis, 3^o Maii 1860.

“That a Select Committee be appointed to inquire whether, having regard to the rights of property of the Crown and individuals in Salmon Fishings on the sea coasts and in rivers and estuaries in Scotland, it is just and expedient that any and what legislation should take place for the regulation of such Fishings, so far as regards the use or prohibition of bag nets, stake nets, cruives, and other fixed nets and engines, and so far as close times or otherwise.”

Die Veneris, 4^o Maii 1860.

The Lords following were named of the Select Committee : the Committee to appoint their own Chairman :

Duke of Richmond.
Lord Steward.
Earl of Malmesbury.
Earl Cawdor.
Earl Ducie.
Earl Innes.
Viscount Hutchinson.
Viscount Eversley.

Viscount Lismore.
Lord Colville of Culross.
Lord Polwarth.
Lord Stewart of Stewart's Court.
Lord Colchester.
Lord Lovat.
Lord Wrottesley.
Lord Stanley of Alderley.

Die Lunæ, 7^o Maii 1860.

Select Committee to meet on Thursday next, at Four o'clock.

Die Martis, 22^o Maii 1860.

“The Evidence taken from time to time before the Select Committee to be printed for the use of the Members of this House ; but no copies thereof to be delivered, except to Members of the Committee, until further order.”

**LORDS PRESENT, AND MINUTES OF PROCEEDINGS AT EACH
SITTING OF THE COMMITTEE.**

Die Jovis, 10^o Maii 1860.

LORDS PRESENT :

Duke of Richmond.
Lord Steward.
Earl Cawdor.
Earl Ducie.

Viscount Eversley.
Lord Polwarth.
Lord Stanley of Alderley.

Order of Reference read.

Order of the House of the 4th of May, empowering the Committee to appoint their own Chairman, read.

It is proposed that the Lord Steward do take the Chair.

The same is agreed to, and the Lord Steward takes the Chair accordingly.

The course of proceeding is considered.

Ordered, That the Committee be adjourned to Tuesday next, One o'clock.

Die Martis, 15^o Maii 1860.

LORDS PRESENT :

~~Duke of Richmond.~~
Lord Steward.
Earl Cawdor.
Lord Colville of Culross.

Lord Polwarth.
Lord Lovat.
Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Thursday last are read.

The *Lord Advocate* for Scotland, a ~~Member~~ of the House of Commons, attending, is examined.

The following Witnesses are also called in, and examined, viz., The Honourable *James Kenneth Howard* and *Horace Watson*, Esq. (*vide* the Evidence).

Ordered, That the Committee be adjourned to Tuesday next, the 22d instant, One o'clock.

Die Martis, 22^o Maii 1860.

LORDS PRESENT :

Lord Steward.
Earl Cawdor.
Earl Ducie.
Earl Innes.
Lord Colville of Culross.

Lord Polwarth.
Lord Stewart of Stewart's Court.
Lord Lovat.
Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Tuesday last are read.

The following Witnesses are also called in, and examined, viz., *Horace Watson, Esq.*, is called in, and further examined, *Mr. Alexander Jopp, Mr. George Davidson, Mr. William Hogarth*, and *Mr. Alexander Adam* (*vide* the evidence).

Ordered, That the Committee be adjourned to Tuesday next, the 5th of June, One o'clock.

Die Martis, 5^o Junii 1860.

LORDS PRESENT:

Duke of Richmond.	Viscount Eversley.
Lord Steward.	Lord Colville of Culross.
Earl Cawdor.	Lord Polwarth.
Earl Innes.	Lord Lovat.
Viscount Hutchinson.	Lord Wrottesley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Tuesday last are read.

The following Witnesses are called in, and examined, viz., *Mr. Alexander Russel, Mr. Andrew Young*, and *Mr. William Dunbar* (*vide* the Evidence).

Ordered, That the Committee be adjourned to Friday next, the 8th instant, One o'clock.

Die Veneris, 8^o Junii 1860.

LORDS PRESENT:

Duke of Richmond.	Lord Colville of Culross.
Lord Steward.	Lord Polwarth.
Earl Cawdor.	Lord Lovat.
Earl Innes.	Lord Wrottesley.
Viscount Hutchinson.	Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Tuesday last are read.

The Marquess of Ailsa, being present, is examined.

The following Witnesses are also called in, and examined, viz., *Mr. George Ridpath, Mr. Charles Stewart, Mr. John Anderson, Mr. Alexander Speedie*, and *Mr. T. Rutherford* (*vide* the Evidence).

Ordered, That the Committee be adjourned to Wednesday next, the 13th instant, One o'clock.

Die Mercurii, 13^o Junii 1860.

LORDS PRESENT:

Duke of Richmond.	Viscount Hutchinson.
Lord Steward.	Lord Colville of Culross.
Earl Cawdor.	Lord Polwarth.
Earl Ducie.	Lord Lovat.
Earl Innes.	Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Friday last are read.

The following Witnesses are called in, and examined, viz., *Elias Cathcart, Esq.*; *James Grant, Esq.*; and *Peter Brown, Esq.* (*vide the Evidence*).

Ordered, That the Committee be adjourned | to To-morrow, the 14th instant, One o'clock.

Die Jovis, 14° Junii 1860.

LORDS PRESENT :

Duke of Richmond.
Lord Steward.
Earl Cawdor.
Earl Ducie.
Viscount Hutchinson.

Lord Colville of Culross.
Lord Polwarth.
Lord Lovat.
Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of yesterday are read.

The following Witnesses are called in, and examined, viz., Captain *Maitland Dougall, R. N.*, and Mr. *Andrew Gow* (*vide the Evidence*).

Ordered, That the Committee be adjourned to To-morrow, the 15th instant, One o'clock.

Die Veneris, 15° Junii 1860.

LORDS PRESENT :

Duke of Richmond.
Lord Steward.
Earl Cawdor.
Earl Ducie.
Viscount Hutchinson.

Lord Colville of Culross.
Lord Polwarth.
Lord Lovat.
Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

¶ The Proceedings of the Committee of yesterday are read.

The following Witnesses are called in, and examined, viz., Mr. *Joseph Bissett* and *William Joshua Ffennell, Esquire* (*vide the Evidence*).

Ordered, That the Committee be adjourned to To-morrow, the 16th instant, One o'clock.

Die Sabbati, 16° Junii 1860.

LORDS PRESENT :

Lord Steward.
Earl Cawdor.
Earl Ducie.

Viscount Hutchinson.
Lord Polwarth.
Lord Lovat.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of yesterday are read.

William Joshua Ffennell, Esq., is called in, and further examined (*vide the Evidence*).

Ordered, That the Committee be adjourned to Tuesday next, the 19th instant, One o'clock.

Die Martis, 19° Junii 1860.

LORDS PRESENT:

Lord Steward.	Lord Colville of Culross.
Earl Cawdor.	Lord Polwarth.
Earl Ducie.	Lord Lovat.
Viscount Hutchinson.	Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Saturday are read.

The following Witnesses are called in, and examined, viz., Mr. *John Hector*, Mr. *George Grey*, Mr. *John Weatherstone*, and Mr. *John Dunn* (*vide* the Evidence).

Ordered, That the Committee be adjourned to Thursday next, the 21st instant.

Die Jovis, 21° Junii 1860.

LORDS PRESENT:

Lord Steward.	Lord Colville of Culross.
Earl Cawdor.	Lord Polwarth.
Earl Ducie.	Lord Lovat.
Earl Innes.	Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Tuesday last are read.

The following Witnesses are called in, and examined, viz., Captain *William Fraser Tytler*, Mr. *Joseph Johnston*, and Mr. *William Paul* (*vide* the Evidence).

Ordered, That the Committee be adjourned to To-morrow, 22d of June, One o'clock.

Die Veneris, 22° Junii 1860.

LORDS PRESENT:

Lord Steward.	Viscount Eversley.
Earl Cawdor.	Lord Colville of Culross.
Earl Ducie.	Lord Polwarth.
Earl Innes.	Lord Lovat.
Viscount Hutchinson.	Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of yesterday are read.

The following Witnesses are called in, and examined, viz., Professor *John Queckett*, F.R.S., Mr. *Charles Newby*, Professor *Thomas Henry Huxley*, F.R.S., Mr. *Robert Allen*, and Mr. *Nelson Foley* (*vide* the Evidence).

Ordered, That the Committee be adjourned to Monday next, the 25th instant.

Die Lunæ, 25° Junii 1860.

LORDS PRESENT :

Lord Steward.
Earl Cawdor.
Earl Ducie.
Earl Innes.
Viscount Hutchinson.

Lord Colville of Culross.
Lord Polwarth.
Lord Lovat.
Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Friday last are read.

The following Witness is called in, and examined, viz. : Commodore *Hastings Reginald Yelverton*, R. N., C. B. (*vide* the Evidence).

Ordered, That the Committee be adjourned to Friday, the 29th instant, One o'clock.

Die Veneris, 29° Junii 1860.

LORDS PRESENT :

Duke of Richmond.
Lord Steward.
Earl Cawdor.
Earl Innes.

Viscount Eversley.
Lord Colville of Culross.
Lord Lovat.
Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Monday last are read.

The *Lord Advocate* for Scotland, a Member of the House of Commons, attending, is further examined.

The Duke of *Richmond* and Lord *Colville* of Culross, Members of the Committee, are examined (*vide* the Evidence).

The Draft of a Report having been prepared by the Chairman, is laid before the Committee, the same is considered, and several Amendments are made therein.

Ordered, That the Committee be adjourned to Tuesday, the 3d of July.

Die Martis, 3° Julii 1860.

LORDS PRESENT :

Duke of Richmond.
Lord Steward.
Earl Cawdor.
Earl Innes.

Lord Colville of Culross.
Lord Polwarth.
Lord Lovat.
Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of Friday last are read.

The Draft Report is further considered, and several Amendments are made therein.

Ordered, That the Committee be adjourned to To-morrow, One o'clock.

Die Mercurii, 4^o Julii 1860.

LORDS PRESENT :

Duke of Richmond.
Lord Steward.
Earl Cawdor.
Earl Innes.

Lord Colville of Culross.
Lord Polwarth.
Lord Lovat.
Lord Stanley of Alderley.

The LORD STEWARD in the Chair.

Order of adjournment read.

The Proceedings of the Committee of yesterday are read.

The Draft Report is further considered, and several Amendments are made therein.

The said Report, as amended, is agreed to (*vide* the Report).

Ordered, That the Lord in the Chair do make the said Report to The House.

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L O R D S P R E S E N T :

Duke of RICHMOND.
Lord STEWARD.
Earl CAWDOR.
Lord COLVILLE of Culross.

Lord POLWORTH.
Lord LOVATT.
Lord STANLEY of Alderley.

THE LORD STEWARD in the Chair.

Evidence on the
Salmon Fisheries
(Scotland).

THE RIGHT HONOURABLE JAMES MONCREIFF, the Lord Advocate of
Scotland, M.P., Examined :

*The Right Hon.
James Moncreiff.*

15th May 1860.

1. *Chairman.*] THE Committee are desirous, before they proceed to inquire into the various matters which have been referred to them, to obtain a clear view of the law, and for that purpose they have requested your Lordship, as the principal law officer of the Crown in Scotland, to attend before them at their first meeting for the purpose of giving them an explanation of the law relating to salmon fisheries in Scotland, and to offer for the consideration of the Committee any suggestions for its amendment, of which, in your opinion, it may stand in need?

I presume the Committee desire that I should make my statement upon the law, general and succinct. There have been much discussion from very early times, and many decisions upon the subject of the law relating to salmon fisheries, but I think I shall be able to narrow those discussions and decisions to one or two now well established points. I had better commence by stating the mode in which a title to salmon fishing is acquired by the law of Scotland. In Scotland the salmon is not a royal fish, in the proper sense of the word. It is not like sturgeons and whales, the property in which truly belongs to the Crown.

2. In Scotland, as well as in England?

Yes; the whale was held to be a royal fish, but a salmon fishing is a separate estate. It is a separate, real, or heritable estate, as it is called in the law of Scotland, and consequently is vested, as all real estate is, in the Crown. By the law of Scotland, under the old feudal principle which still subsists, all the land and real rights of Scotland are vested in the Crown, and can only pass from the Crown to a subject by a specific grant, or by what is equivalent to a specific grant. The right of salmon fishing, accordingly, is a separate estate, so much so, that the Crown may grant a right of salmon fishing in a river although the grantee have no property on either bank. A right of that kind is not uncommon in Scotland, and it implies a right to draw nets and exercise other rights upon either bank, although there is no property in the banks in the grantee. Therefore, salmon fishing can only be exercised by a person having a right from the Crown; but then that right need not necessarily be a direct grant of salmon fishing. It is sufficient if there is a title from the Crown of fishings generally, "*cum piscationibus*," or "*cum piscariis*," followed by possession for a prescriptive period, which is 40 years or from time immemorial. But rod fishing will not be a sufficient exercise of right to found a prescriptive title.

3. Do you use the terms "for 40 years or time immemorial" as convertible terms?

They are substantially convertible terms; a prescriptive title may be constituted without absolute proof of possession for 40 years, if the proof is sufficient

*The Right Hon.
James Moncreiff.*

15th May 1860.

sufficient to bring it up to time immemorial, a period beyond which there is no memory to the contrary.

4. Earl of *Cawdor*.] Is there any period in the law of Scotland which is considered time immemorial as there is in the English law?

Nothing short of 40 years. If 40 years' possession is proved, it is considered sufficient. I was going on to say, that rod fishing or mere angling for salmon is not a sufficient possession of a right of salmon fishing to make a prescriptive title in the absence of a direct grant, but it is necessary that the fishing should be exercised by some mode of mechanism like cruives and yairs, as they are called, or nets; that is to say, fishing with net and coble or fishing with cruives and yairs, following on a general grant of fishings for the period of prescription, will be sufficient to constitute a prescriptive title, but not rod fishing or spearing; I think that is all that it is necessary for me to say upon the question of title.

5. You have not adverted to the use of stake nets or bag nets. Are they of modern introduction, or are there any laws founded upon the use of stake nets and bag nets?

I will speak of them in detail, because their use brings in the prohibitory statutes which regulate salmon fisheries. In the mean time, the question of title seems to rest here, that there must be a direct grant from the Crown, or prescriptive possession of some mode of fishing other than rod or spear fishing and that for 40 years following on the title *cum piscationibus*.

6. By means of some fixed engine?

Not by some fixed engine, but by some mechanical contrivance, other than ordinary angling. There is a question that I do not think is quite clear in the law in regard to the effect of a title to a barony, without any specific or general grant of fishings, as a foundation for prescribing a right to salmon fishing. In Scotland, the larger estates are frequently erected into baronies, and that implies certain feudal consequences. A barony is "*nomen universitatis*," and such a title may be a foundation for prescribing incidental or accessary rights to land, which the terms of the grant would not form a title to prescribe if the lands were not a barony, and it is a question whether a title to a barony followed by possession of a salmon fishing, may not be a sufficient title. I do not think that is quite clearly established in the law. Lord Stair lays it down that the title to a barony *cum piscationibus*, will be sufficient; but I should simply wish to express my doubt whether, if the question arose, a barony title would be found, if without the words *cum piscationibus*, or other words implying fishings, to be a sufficient title to prescribe sea fishings, of which I am speaking more especially. I think there is great difficulty about that question, and it is one which probably will arise as regards the fishings on the sea coast, of which I will speak presently. So much for the title. The next question regards the mode of fishing, and the limitations that have been imposed upon fishing by statute. That question may be considered, first in reference to rivers, proper; secondly, to estuaries, and lastly, to sea-coast fishings in the sea, proper. Now, these matters, and the way in which the right of salmon fishing should be exercised, have been from the earliest times the subject of Acts of Parliament, extending as far back, in fact, as any of our statute law, and indeed there are traces of legislation upon the subject beyond the commencement of our statute law which is preserved to us. I do not know whether the Committee wish that I should go in detail through those statutes; they begin as far back as Robert the First, in 1318.

7. *Chairman*.] Have not all these Acts been repealed, and the Act of George the Third substituted for them?

No; one of them, fixing a close time, has been repealed, and the remedies provided have been mitigated, and the close time has been regulated, but in regard to the mode of exercising the right of salmon fishing, and the places within which the right may be exercised, they are still the law of Scotland, and, indeed, have been the subject of most anxious discussion in very recent cases. I have here a printed copy of all these Acts of Parliament, which, perhaps, instead of my going through them in detail, the Committee would allow me to put in as part of my evidence, and, I think, a few observations upon them will bring before the Committee the state of the law at present. The first of these Acts is an Act of Robert the First, 1318, chapter 12, which says, "*Item ordinatum*

ordinatum est et assensum quod omnes illi qui habent croas, vel piscarias, vel stagna, aut molendina, in aquis ubi ascendit mare et se retrahit, et ubi salmunculi vel emolti seu fria alterius generis piscium maris vel aquæ dulcis descendunt et ascendunt." These words have been the subject of great discussion as to what they embrace.

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8. Have you any objection to state what your own view is ; whether it is not the ebb and flow of the tide ?

I think I shall be able to make that quite clear. The Act then goes on to regulate the width and length of the cruives and other machines for catching the fish. The subsequent statutes are very much to the same effect ; I do not think it necessary to go over them, but I may mention, that in 1563 there is an important statute, ordering "that all cruves and fish dammes that are within salt waters that ebbis and flowis, be all utterly destroyed and put downe, alsweil they that pertainis to our Soverain Lord, as others throu all the realme ; and anentis cruves in fresh waters, that they may be maid in sik largenesse and sik dayes keiped, as is contained in the Actes and Statutes maid thereupon of before, with this addition following ; that is to say, that all cruves and zaires that are set of late upon sand and schauldes, far within the water, quhair they were not of before, that they be incontinente tane down and put away, and the remanent cruves that are set and put upon the water sandes, to stande still qutil the first day of October nix-to-cum, and incontinent after the said first day to be destroyed and put away for ever" ; and then there is an exception, "providing alwayes that this Act on naways be extended to the cruves and zaires being upon the water of Solway." The legislation upon the subject went on, and the last Act that I have here is the Act of 1705, ratifying and approving of the former laws and Acts of Parliament, and as I said before, perhaps the Committee will allow these Acts of Parliament to stand as part of my evidence.

The following Acts are delivered in :

SCOTS ACTS relating to SALMON FISHINGS.

ROBERT I, 1318, c. 12.

1318. c. 12.

ITEM ordinatum est et assensum, quod omnes, illi qui habent croas vel piscarias, vel stagna, aut molendina, in aquis ubi ascendit mare et se retrahit, et ubi salmunculi vel smolti seu fria alterius generis piscium maris vel aquæ dulcis, descendunt et ascendunt, tales croæ et machinæ infrapositæ sint ad minus de mensura duorum pollicum in longitudine et trium pollicum in latitudine, ita quod nulla fria piscium impediatur ascendendo vel descendendo, secundum quod libere possint ascendere vel descendere ubique. Et si quis contrafecerit et super hoc convictus fuerit seu attaintus, habeat prisonam quadraginta dierum et sit nihilominus amerciatus graviter. Et defendit Dominus Rex ne præsumat piscari ad salmones, ver salmunculos, temporibus prohibitis, super antiquam pœnam. Et quod quilibet vicecomes in vicecomitatu suo illud statutum custodiri faciat in omnimodis aquis, supergravem forisfacturum Regis, et præsentet defectus (eorum) coram justiciario in itinere suo.

JAMES I, 1424, c. 11.

1424. c. 11.

Item, It is ordanyt that all cruvis and yaris set in fresche watteris, quhar the see fillis and ebbis, the quhilke destroyis the fry of all fisches, be destroyit and put away for thre zeris to cum, not gaynstandand ony privileges or fredom geifyn in the contrare under the payne of IC. £. And thai that has cruvis in fresche watteris that thai ger keip the lawis anentis the Satterday slop and suffer thaim not to stande in forbodyne time under the said payne. And that ilk hek of the forsaidis cruvis be iii inch wyde, as it is requirit in the auld statutes maid of befor.

JAMES I, 1424, c. 35 (repealed by 9 Geo. IV., c. 39).

1424. c. 35.

It is ordained be the Parliament, and forbidden be the King, that onie salmound be slaine, fra the Feast of the Assumption of our Ladie quhill the Feast of St. Andrew, in winter, nouthur with nettes nor cruves nor nane utherwaies, under the paine put upon slayers of read fish, quhilke alswa the Justice Clerke sall gar inquire.

JAMES I, 1427, c. 6 (or 116).

1427. c. 6.

Item, the King, with consent of the haill consal has continewit the statute of the putting away and destroying of the cruvis in watteris that fillis and ebbis for thre yeare to cum in forme and effec as was statute in the first parliament.

*The Right Hon.
James Moncreiff.*

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1429. c. 22.

JAMES I, 1429, c. 22 (or 131).

Item, It is statute and ordainit that the act of the fishching of salmonde maid be the King that now is, ande the thre Estatis, be fermly kepit, ay furth quhil it be revokit be the King and the three Estatis of the Parliament, outetakande the watteris of Sulway and Twedye quilkis salbe (reddie to) al Scottis menis al tymis of the yer als lang as Berwyk and Roxburgh are in Engliemennis hands.

1457. c. 34.

JAMES II, 1457, c. 34 (or 66).

Item, That na man in smolt time set veschelles, creilles, weires, or ony uther ingyne to lat the smoltes to pass to the sea under the paine of ten pound to the King; and that the schireffe of the land destroye them that are maid.

1469. c. 13.

JAMES III, 1469, c. 13 (or 87).

Item, for the multiplication of fish, salmond, grilsis, and trowtes quhilk are destroyed be cowpes, narrow masses, nettes and prynes set into rivers that hes course to the sea, or set within the flude marke of the sea; it is advised in this instant parliament that all sik cowpes and prynes be destroyed and put away for three zeires. And quha sa haldis them up sall be indited and punished be the King's justice in till his Justiceaire as destroyers of redde fish after the tenour of the act of slauchter of redde fish last maide of befor. And in likewise, all maillares that slayis smoltes with creillis, or ony uther manner of way, sal be punished by the Kingis lawes after the tenour of the foresaid acte last maid upon the redde fish. And that ilk shireffee within his shire shall destroy and cast downe the said instrumentes, cowpes, prynes, and narrow masses, nettes, creillis, or ony sick like.

1477. c. 6.

JAMES III, 1477 (or 1478), c. 6 (or 73).

Item, It is statute and ordained that the acte maid of before be King James the First anent the cruves sett in waters be observed and keiped, the quhilk beiris in effect that all cruves set in waters, quhair the sea fillis and ebbis, the quilk destroyis the fry of all fisches, be put away and destroyed for ever mair, notwithstanding all freedome or priviledge given in the contrair, under the pain of five pound for ilk cruve; and that they that hes cruves in fresh waters, that the gar keip the lawes anent the Saturdaies slop, and suffer them not to stand in forbidden time, under the samin paine; and that ilk heck of the said cruves be three inch wide, as the auld statute requiris maid be King David, and that the mid streame be left free be the space of sex fute; and that it shall be a point of dittay baith of them that does the contrair, or garis be done, and quha that beis convict thereof to pay five pund, as said is.

1488. c. 16.

JAMES IV, 1488, c. 16.

It is statut and ordand that all cruffis and fisch-dammys that ar within salt waterys quhar the sey ebbis and flowis be alutly destroyit and put done, alswele thai belongis to our Soveraine Lord as utheris through all the realme. And as anent the cruffis in fresch wateris, that thai be maid of sic largines, and sic dayis keepit, as is contenit in the actis and statutes maid thereuppon of befor.

1489. c. 15.

JAMES IV, 1489, c. 15.

Item, Anent the cruves and fish zaires quhilkis destroyes the fry of fish, and hurtis the commoun profite of the realme; it is statut and ordained that the actes and statutes maid of before, be observed and keepid with this addition: That letters be written to all schireffes, baillies, and stewardests to destroy, cast-doune, and put away all the said cruives within their bounds incontinent without ony delay. And that dittay be tane of them that hes cruives in contrair the said act, and to pay for ilk cruve five pound for amerciament in the justiceaire, to be raised on the maker and uphalder of the samen. And in likewise, that the schireffe that destroyis not the said cruffis within forty dais efter this Parliament, the sheriff that failes to be in amerciament of twenty pound to the King in the justiceaire, and to be a point of dittay, as said is. And anente the cruives set in freshe waters, that they stand not in forbidden time. And let the mid streame be alway free, be the space of five fute. And that the Saterdays slop be observed and keeped, as the act and statute made be King David requiris. And that ilk heck of the said cruives be five inch wide according to the samin statute. And for millers that settis creillis and nettes, in dammes, and ladis of waters destroyand read fish, and fry of fish, as said is, it sall be a point of dittay. And the paine baith of the cruives, creilles, nettes, of millers, ilk ane of them to be as ane unlaw of read fish, to be raisit and taken of them that dois in the contrair, and that letters be written as said is to the schireffes, stewardests, and baillies, to put this act to execution, and see that the samin be observed and keeped, under the paine of twentie pound to be raised upon the officeres that failzie, as said is. And as touching the slauchter of read fish, that it be punished after the form of the statutes, declairand the unlaw thereof, ten pound.

1503. c. 17.

JAMES IV, 1503, c. 17 or (72.)

'Item, Anent the slauchter of redde fishe in forbidden tyme, because the lital unlaw thereof hes bene the cause and occasion that the redde fish hes been slaine in great number, to the great heirship of the countrie, and the destruction of the commoun weill: And als, anent the slayers of smoltes in milne-dames, clowses, and be nettes, thornes, and cruves; and it then fixes the penalties for each offence, and it is added, 'and gif ony person

'person or personis claime to have sic privelegis to slay sic fische in forbodin tyme be ony
'of the wayis foresaid, that all sic privileges ceiss unto the tyme that thai cum before
'the King and Lordis, and schaw their said privilege that thai may be considerit quhiddir
'sic privileges be for the common weal or not.'

*The Right Hon.
James Moncreiff.*

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JAMES V, 1535, c. 16.

1535. c. 16.

Item, Our Sovereine Lord ordaines the actes maid upon them that slayis rede fish, smoltes, and salmon, in forbidden tyme, and the paines contained in the same to be put to sharp execution.

C 17.—Item, That the acts maid by our Soverain Lordis father, quhome God assoilzie, and uthers, his progenitors, anent the halding of cruives and fish zairs, be observed, kepted, and put to execution in all poyntes.

QUEEN MARY, 1563, c. 3.

1563. c. 3.

The Queen's Majestie, and the thrie Estates of this present Parliament, ratifies and apprieves the act maid by her highnesse maist noble gud-schir, King James the Feird, of gude memorie, of the quhilk the tenour followies:—Item, It is statute and ordained that all cruves and fish dammes that are within salt waters, that ebbis and flowis, be all utterly destroyed and put downe, alsweil they that pertains to our Soverain Lord, as uthers throu all the realme: And anentis cruves in fresh waters, that they be maid in sik largenesse and sik dayes kepted as is contained in the actes and statutes maid thereupon of before, with this addition following,—That is to say, that all cruves and zaires that are set of late upon sand and schauldes, far within the water, quhair they were not of before, that they bee incontinentane tane down and put away, and the remanent cruves that are set and put upon the water sandes, to stande still quhil the first day of October nix-to-cum, and incontinent after the said first day to be destroyed and put away for ever: And for execution of this act, ordains every earle, lord, baronne, and everie gentleman landed, within his awin boundes, to cause remove, destroy, put downe, and take awaye, the saides cruves and zaires, in manner forsaide respective, under the paine of one hundreth poundes, to bee taken up of their gudes that puttes not this act to dewe execution, &c. Providing alwayes that this act on naways be extended to the cruves and zaires being upon the water of Solway.

JAMES VI, 1579, c. 27.

1579. c. 27.

Item, Our Sovereine Lord and the three Estaites of Parliament, considering the hurt that hes cummin to the commoun weile of this realme, and lieges theirow, be having and keeping of cruives and zaires, slauchter of reid fische in forbidden time, and smoltes, and that divers actes and constitutions has been maid be his Hieness' maist noble progenitours in time bygane, toward the destruction and away putting of the saides cruves and zaires, and eschewing of slaying of reid fische and smoltes, quhilkes acts hes not received execution in time bygane, bot hes been neglected and overseene: Therefore ordainis the saides actes to be extended and have effect and execution in time cumming against the transgressors thereof, after the forme and tenor of the same: As alsua against all that slays the saidis rede fisch in forbidden time, be blesis, casting of wandes, or uthewise, or that destroyes the smoltes and frye of salmound, in mill-dammes, or be polkes, creilles, trammel nets, and herrie-waters; and that the landeslorders and awners of the saidis cruves and zaires, betwixt this and the 1st day of March nix-to-cum, put down, and hald down the saidis cruives and zaires, conform to the saidis actes, and under the panes contained therein, &c.

JAMES VI, 1581, c. 15.

1581. c. 15.

For execution of the Acts maid anent casting downe and halding downe of Cruves and Zaires, and Punishment of the Transgressours theirow, Slauchter of reid Fische, and of the fry of all Fische.

Our Sovereine Lord, and the three Estaites of this present Parliament, ratifies and apprieves of Actes maid be his Hienes, and his maist noble progenitours, anent the destruction of cruves and zaires, slauchter of reid fische, smoltes, and fry of all fisches. And ordainis the samin to have effect and execution in time cumming. And because it is understand to his Hienes, and his saidis three Estaitis, that albeit paines and travelles wes tane, to caste downe and destroye the saidis cruvis and zaires; zit in default of the execution of the paines contained in the saidis Actes upon the contraveners thereof, the saidis cruves and zaires are not halden downe, nor any uther thing in effect (appointed to be done be the saidis Acts) put in execution, throw the default and negligence of the ordinair officiares, to quhom the execution thereof was committed. Therefor, our Souveraine Lord, with advise of his saidis three Estaitis, hes maid, constitute and ordained, and be the tenour of this present Act, makis, constitutis and ordainis the persons after specified, within the bounds particularly followand, his Hienes Justices in that pairt, to the effect underwritten. They are to say: George Earle of Caithnes, for the boundes of Caithnes and Strathnaver; Alexander Earle of Southerland, for the boundes of Southerland, and all rivers therein; the said Earle of Southerland, George Ross, appeirand of Balnagowne, and Robert Monro of Fowles, conjunctlie and severallie for the water of Killosochell. The said Robert Monro of Fowles, baillie and chamberlaine of Ross, for the water of Conan. James Earle of Arran, and his deputes, for the water of Ferrar. The schireffe of Innerness, and

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his deutes, and the provest and baillies of Inness, for the water of Nesse. The schireffe of Narne, and his deutes, and the provest and baillies of Narne, for the water of Narne. The schireffe of Elgyne and Fforest, and his deutes, and the baillies of the earldome of Murray, and of the Abbey of Kinlos, and Priory of Pluscarden, and the provest and baillies of the burrowes of Elgyne and Fforest, for the waters of Spey, Findorne, and Lossey. The schireffe of Bamff, and his deutes, and the provest and baillies of the burgh of Bamff, for the water of Deverne. The Laird of Essilmont for the water of Ythane. The Earle of Marschell for the water of Ugy. The schireffe of Abirdene, and his deutes, and the provest and baillies of Abirdene for the waters of Dee and Don. The schireffe of Kinkardin and his deutes for the waters of Cowy and Berwy. The Earl of Montrose and the provest and baillies of Montrose for the waters of North-Esk and South-Esk. The schireffes of Perth and Forfar, stewart of Stratherne, and their deutes, and provests and baillies of Perth and Dundie for the waters of Tay and Erne, and their graines. The schireffe of Fife and his deutes for the south side of Tay, lyand within the schireffdom of Fife, and for the water of Levin. The provest and baillies of Cowper for the water of Eden. The stewart of Menteith and his deutes for the heades of the waters of Teith and Forth. The schireffe of Strivling, and his deutes, and the provest and baillies of Strivling for the remanent of the waters of Forth, Teith, Guidie, Carron, Alloun, and Dovane, and their graines. The schireffe of Linlithcow and his deutes, and the provest and baillies of Linlithcow, for the water of Avane and south side of Forth, within the bounds of that schireffdom. The schireffe of Edinburgh, principall, and his deutes, and the provest and baillies of Edinburgh, for the waters of Ammond, Leith, North and South-Esk. The schireffe of Edinburgh, within the constabularie of Haddingtoun for the waters of Tyne and Beil. The schireffe of Dumfries and his deutes, the Earle of Mortoun, wardane of the West Marches, and his deutes, and the provest and baillies of Dumfries, Kirkcudbright, and Annand, for the waters of Annand, Nyth, Dee, Cree, and Luce. The baillie of Carriart and his deutes for the waters of Stinchell and Girvane. The schireffe of Air and his deutes, and the provest and baillies of Air, for the waters of Dune and Air. The baillie of Cuninghame and his deutes, and the provest and baillies of Irwing, for the waters of Irwing and Garnock. The schireffes of Lanark, Renfrew, and their deutes, and the provest and baillies of Glasgow, Renfrew, and Lanark, for the waters of Clyde and graines thereof. The schireffe of Dumbartane and his deutes, and baillies of the burgh of Dumbartane, for the waters of Levin and Ainrik. The schireffe of Argyle and Tarbart and his deutes for the boundes of the said schireffdom and Lorne to the march of the schireffdom of Inness, and the said schireffe of Inness and his deutes, for all the boundes of the said schireffdom on the north-west coast, fra the march of the schireffdom of Argyle to Strathnaver. Givand, grantand, and committand to the saidis Justices in that pairt, conjunctlie and severallie, within the bounds particularlie aboue written, full power, speciall command, expresse bidding, and charge: to inquire, and take up dittay of all persones contraveners of the saidis actes of parliament, within the boundes particularlie aboue written. Als weill the principall offenders, as their maisters, landis lordes, and receipters, and to call them to underlie the law therefor, in the tolbuith of the head burgh of every schire, or uther place convenient; at the discretion of the saidis Justices, and put them to the knowledge of ane assise: And as they be foundin culpable or innocent, to minister justice upon them, conforme to the lawes of this realme. The paines contained in the saidis actes, to raise and uplift, and of the samin to make compt, reckoning and payment to our Sovereine Lord, and his Hienes Thesaurer in his checker. And to the effect, that the execution of the saidis actes sall not be neglected, as in times by-past: Ordainis twa ordinar Justice Courtes to be holden zeirlie. The ane the first day of Februar, and the uther at the first day of August, or the next lauchfull dayes thereafter following, besides uther courtes to be holden at uther days, quhen occasion serves, at the discretion of the saidis Justices. And in case the saidis Justices, or any of them, failzie in doing of their exact diligence for execution of this present commission, at twa times every zeir as said is, being called and convict thereof before our Sovereine Lordis Justice principall or his deutes, at the instance of His Hienes Advocate, every one of them sall incur the paine of twa hundred pundes, to be uplifted of them be His Hienes Thesaurer, to His Majesties use, Be it alwayes understand, that this present Act, nor nathing therein contained, sal be prejudiciall to His Hienes subjects, being dewlie infest and in possession of halding of cruves, lines or loupes, within fresch waters, but that they may use, joiss, bruick, and occupie the same in time cumming, according to their richtes, keepand the Setterdays slop, and sic distance betwixt every heck, as the actes of parliament appoyntis. And in case they failzie therein, to be accusabill, and suffer punishment as the remanent transgressours of the saidis actes.

1606. c. 4.

ACT anent the Rivers of Tweed and Annand, passed in the Eighteenth Parliament of JAMES VI.—9th July 1606, c. 4.

Our Sovereigne Lord and Estaitis of Parliament, understanding that in the Act made in Heighnes Parliament, in the year of God, ane thousand sex hundredth years, whereby the slaying of Salmond fishe in forbidden tyme, or of Kipper Smoltes or black fishe, at any tyme was declared to be thift; and the committers thereof were ordained to be punished for the samine as for thift. The Rivers of Tweed and Annand were then excepted, because the said Rivers at that tyme devyded at many parts, the bounds of Scotland and England adjacent unto them, whereby the forbearance upon the Scots part of the slaughter of Salmond, in forbidden tyme, and of Kipper, Smolts, and black fishe, at all tymes: wald not have made Salmond any mair to abound in these waters, gif the lyke order had not bene then

then observed upon the English side. Whilk impediment, through the infinite mercy of God, being now removed, by the most happie uniting of baith the kingdomes, in the Royal Person of his most excellent Majestie, undoubted and righteous Monarch of the samine.— Whereby the Inhabitants of this hail Isle, are equallie subject to his sacred person and Lawes; and the remeed of their harmes, and the redress of their abuses, punishment of their transgressions, and establishing of their universal well belangs to his charge.

*The Right Hon.
the Lord Advocate
for Scotland.*

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Therefore our said Sovereigne Lord and Estaites of his Heighnes Parliament, clearlie understanding that the cause of the said exception is now removed, Ratifies and approves the said Act of Parliament, anent the forbidding of Salmond, Kipper, Smolts, and black fishe, in manner above-written, and paines of thift and death, decerned against the contraveiners thereof. And retreats, perpetuallie annulles and abrogats the said exception of the said waters of Tweed and Annand. And decerns and declares, that in all tyme comming, the contraveiners of the said act, or any part thereof, in the waters of Tweed or Annand, or any part of the samine, shall underly the said paines of thift and death, according to the qualitie, rank, and estate of the committees thereof, and as if the first act had bene generall, and the said exception had never bene contained therein.

JAMES VII. c. 24, May 30, 1685.—ACT for preserving GAME.

1685. c. 24.

Our Sovereign Lord and Estates of Parliament now presently convened, taking to their consideration the great decay of game in this his ancient kingdom, especially in the low countries, notwithstanding of all the laws and Acts of Parliament and Acts of Privy Council made thereanent by his Royal predecessors, which does principally proceed thro' the not vigorous execution of the said laws and Acts, and not exacting of the fines and penalties therein contained. Therefore our Sovereign Lord, with advice and consent of the Estates of Parliament now presently convened, does revive, renew, ratifie, and approve all the former laws and Acts of Parliament made for preserving of the game, and the Act of his Majesties Royal Brother (of blessed memory) King Charles the Second, with the advice of his Privy Council of the date the 9 day of June 1682 years, with the whole laws and Acts of Parliament therein narrated, of which Act the tenor follows:—A proclamation reviving the laws anent hunting, hawking, fishing, and appointing masters of the game, Charles by the grace of God, King of Great Britain, France, and Ireland, defender of the Faith, to
macers of our Privy Council, or messengers-at-arms, our sheriffs in that part conjunctly and severally, specially constitute, Greeting: We, taking to our consideration the great prejudice the Kingdom doth sustain in the decay of deer, roes, and wild fowl, and that there is not only ane danger of utter decay of so useful creatures, but the manly exercise of hunting and hawking is like to be altogether neglected; and albeit our Royal progenitors have made many good laws to prevent and repair this great evil and mischief, and against the destroying of smolts and trouts with creels, and other engines, anent cruives and zairs, steeping of lint in rivers, lochs, and burns where fishes are; which good laws, although they be yet in force, unrepealed, yet by the distraction of the late times, they have been less regarded these many years bygone, to the enorm lesion of our people and contempt of our authority, have therefore, with advice of our Privy Council, thought fit to revive all the laws that stand yet unrepealed or innovate, for preserving of doe, roe, hares, and wild fowl, and especially the 31st Act of the 23d Parliament of King James the Sixth, whereby all persons who are not heritors are prohibited to hunt and hawk, and that neither heritor nor other shoot deer or roe in time of snow. As also the 11th Act of the fourth Parliament of King James the Fifth, and 210th Act of the 14th Parliament of King James the Sixth, by which letters are ordained to be direct, charging all keepers of his Majesty's forests to permit no pasturage within the marches of the forests, but that they seize and escheat them under the pain of loss of their office; and that forresters of forests belonging to privat men, shall apprehend such as travel with gun or dogs in forests, and carry them to the nearest sheriff, stewarts of stewartries, baillies of baillairies, and regalities, or justice of peace, to be secured to answer as accords of the law; and that all such of the leidges, who shall be required to concur to apprehend such persons, give ready obedience, as is ordained by the Forest Laws, cap. 15, and cap. 22, and those who conceal them be fined as art and part of the said fault: And further, we do hereby forbid all shooting of hares or heron at any time, under the pains contained in the Acts of Parliament made thereanent. Item, that all persons forbear to slay any muirfowl, heathfowl, partridge, quail duck or mallard, taile, or atale, or tormichan, from and after the first day of Lent to the first day of July yearly, according to the 108 Act Parliament, seventh King James I., excepting water fowl with hawks in dredging tim. Item, that 23d Act Parliament, 16th King James VI., forbidding the killing of muir-foul-pouts before the 1st of July, heath-pouts before the 1st of August, or partridge or quail before the 1st of September yearly. Item, We revive the 48th Act Parliament, 4 King James IV., forbidding muirburn after the last of March, and the masters to be lyable for all upon their lands. And further, we, considering that setting dogs and other engines for killing of fowl is a great cause of the scarcity of game, we do hereby prohibite and discharge all persons to have or use setting dogs, unless he be an heritor of 1,000 pound of valued rent, and have express license of the masters of our game within their several bounds, under the pain of 500 merks *toties quoties*, in case of failzie; and we do hereby discharge all common fowlers and shooters of fowl, or any persons, except they be domestick servants to noblemen or gentlemen, who are heritors of 1,000 pounds Scots of valued

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rent, to have or make use of setting dog or fowling pieces under pain of escheat of such dogs or guns, and imprisonment of their persons for the space of six weeks, *toties quoties*. Item, We revive the 210th Act Parliament, 14th King James VI., whereby shooting, hunting, or hawking within six miles of our palace are prohibited, under the pains therein contained, without express license of the masters of the game. And seeing the fowls, hares, and roes are already so far destroyed, that there is ground to fear a total decay thereof, we therefore, with advice foresaid, do revive the 23d Act Parliament, 16th King James VI., forbidding all selling or buying of deer, roe, hares, muirfowl, tormichan, heath-fowls, partridge or quail, for the space of seven years next ensuing the 20th day of June instant, year 1682, under the pains contained in the said Act, and for the better discovery of the contraveeners, we do hereby give warrant to the masters of our game, their deputs, or others empowered by either of them, in their respective bounds, to make search for any of the saids deer, roe, hares, tormichan, heathfowl, partridge, or quails, so killed, in any suspect place, as well the buyers as sellers in mercat, or without the samin, or fowlers, and to seize, search, secure and confiscat the same for their own use. Item, We do hereby revive the 51 Act. Par. 6 Q. Mary, forbidding hunting on other men's ground, without leave of the owner. And whereas, by the 11 Act. Par. 1 K. James I., cruives and zairs set on fresh water, without express infestments of salmond fishing, are ordained to be destroyed and put away for ever; and that where kruives are allowed, by infestments, that ilk heck be three inch wide, which is ratified by the 73d Act Parl. 10 K. James 3; and by the 87 Act. Parl. 14 K. James 2, It is statute, that no man set vessels, creels, weirs, nets, or any other engine, to hinder smolts from going to the sea, and that coups, masses, nets, prims, set on waters that has course to the sea, be destroyed, and who hold them up to be lyable as destroyers of red fishes. Item, That all millers that slay smolts or trouts with creels, or any other engine, or any who dams or lavea, shall be punishable as slayers of red fish, conform to the (37) Act Parl. 5 King James 3, and where the transgressors has no means, they are appointed to be put in prison, irons or stocks, for the space of one moneth, upon their own expenses; and if they have it not of their own, to be fed on bread and water, conform to the 89th act of Parliament, 6 King James VI., and by the 13th act Parliament 18 King James VI. The steeping of lint in rivers, lochs, or burna, where fishes are is discharged, and that under the pain of fourty shillings Scots, *toties quoties*, and confiscation of the lint, which good and ancient laws yet standing unrepealed or innovate, We have thought fit hereby to revive and ordain to be put in execution, ordaining hereby the masters of our game to require all heritors and others to throw down all cruives and zairs set on fresh waters, without express infestment of salmond fishing, betwixt and the first of July next, under the pain of ane hundred pound Scots, to be uplifted off these who refuse, and the sheriffs and their deputs to give speedy justice therefore when desired by the masters of the game and their deputs. And we appoint the several sheriffs, and their deputs, stewarts of stewartries, bailiffs of regalities and their deputs, and magistrats of the next adjacent burrows, to concur with the masters of game, for throwing down of the saids cruives, creels, nets, and engines, when they shall be required: and if the said judges be found negligent, that the foresaid penalty be uplifted off themselves according to the 68th act Parliament 9 of Queen Mary. And to the effect the said laws may receive the more vigorous execution, We do hereby commissionat the persons following to be masters of game within the respective bounds after specified—viz. Our Chancellor for the time being for the three Lothians, and town of Edinburgh and shire of Bathgate; the Earl of Mar for Stirlingshire; Sir George Mackenzie of Tarbet, Lord Clerk Register, for Clackmannanshire; the Earl of Belcarras for Fife, and Sir William Bruce of Balcaskie for Kinross; the Marquiss of Atholl, Lord Privy Seal, for Perth-shire; the Earl of Perth for the stewartries of Stratherne, Monteith, and Balquhadder; the Earl of Southesk for Forfar-shire; the Earl of Marischall for the shire of Kincardin, and for all below Mormouth-hill and the water of Eugie in Banff-shire; and the Earl of Airly for all the rest of Banff-shire; the Earl of Dumfermling for all betwixt Crathus Bannachie and the sea in Aberdeen-shire; the Earl of Kintore in all above that in the said shire; the Earl of Murray for all from Spey to Ness, high and low, comprehending Elgin, Nairn, and Inverness-shire to Lochness; the Earl of Seaforth from Ness to Conon, high and low, comprehending Cromarty-shire; Sir George M'Kenzie of Tarbet, Lord Clerk Register, from Conon to Portna Coulter and Okel Water, and on the west from Lochow to Cuiliscuack; the Lord Duffus for Sutherland, excepting Assint, which is in the last division; the Earl of Caithness for Caithness; the Stewart of Orkney for Orkney; for Argyle and Bute the sheriff for the time being; the Earl of Home for the shire of Berwick; the sheriff of Roxburgh for the shire of Teviotdale; the Lord Duke of Hamilton for Lanerk-shire; the Earl of Kilmarnock for the shire of Air; the Lord of Yester for Peebles-shire; the Earl of Glencairn for the shire of Renfrew; the Marquis of Montross for the shire of Dumbartoun; the Laird of Broughtoun for the shire of Wigtoun; the Earl of Galloway for the stewartrie of Kirkcudbright; and the Marquis of Queensberry, Lord High Treasurer, for the shire of Dumfries. Hereby empowering and warranting them to put the standing laws in execution, in so far as concerns the preserving of forests, wild fowl, and fishing, especially the laws and ordinances above specified, and we require all our judges ordinar in their respective bounds and jurisdictions to give speedy justice thereupon in favours of the saids masters of our game, or their deputs, when they delate or pursue delinquents before them, as they will be answerable upon their duties and offices. And all sheriffs, mayors, and other officers and fiscals of their respective courts, are ordained to cite delinquents before these courts as they shall be informed thereof, and witnesses to prove the samen, and to prosecute them until final sentence be pronounced against them, and

and thereafter see these sentences put to due and lawful execution, the expenses whereof is to be paid out of the first and readiest of the fines of the delinquents so uplifted, at the sight of the respective masters of the game, under the pain of deprivation and further censure in case of neglect, as our council shall find cause. And for further enabling our saids masters of game, we empower them to appoint deputs, one or more, for whom they are to be answerable as well for their diligence, as fidelity. And that their saids deputs themselves, nor none by their connivance, take upon them to contraveen this proclamation, and destroy the game. And to encourage them in so good service to us and our people, we hereby allow our parts of all fines and unlaws due to us by our laws for the crimes relating to forrests, game, and fishing, in favours of the saids masters of our game, within their respective bounds, and during the time we shall think fit to employ them in said service, withall certifying them that if they be remiss or negligent in their duty, they are to be discharged of their offices, and fined by our Privy Council as they shall find cause. And we declare our said commission is to continue and endure for the space of seven years after the date hereof, and until we or our Privy Council think fit to recall the same. And that we have recalled our former proclamation anent game of the Fourth of March 1680. Our will is herefore, and we charge you strictly, and command, that incontinent these our letters seen, ye pass to the Mercat-Cross of Edinburgh, and other mercat-crosses of the head burghs of the several shires of this kingdom, and other places needful, and there, by open proclamation, make publication of the premisses, that none pretend ignorance. Given under our Signet, at Edinburgh, the 9 day of June 1682 years, and of our reign the thirtieth and fourth year: And does strictly require and command all our masters of game, sheriffs, and other magistrates and their deputs, and all heretors and liferenters and proper woodsetters within their respective bounds to be diligent and vigilant in time coming, in putting the saids acts and laws therein contained to full and due execution: And does hereby require all our judges, before whom our masters of game or others shall pursue the contraveeners, to give them full and speedy justice as they shall be answerable, and for the preservation and increase of partridge, muirfowl, heathfowl, and quails, (which ar so much decayed of late), our Sovereign Lord, with consent aforesaid, does statute and ordain that no person or persons whatsoever shall make use of setting dogs with nets for taking or killing of partridges, muir fowls, heath fowls, or quails within any part of this our ancient kingdom, for the space of seven years immediately after the publication hereof, under the penalty of fourty merks Scots for each fowl that shall be so killed or taken, to be paid by the killers or takers to our masters of game, and their deputs or others who pursue the same: And whosoever shall shoot hares, shall pay fourty merks Scots for each hare that he shall shoot.

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WILLIAM III, 1696, c. 35.

1696. c. 35.

Act against killers of black-fish, and destroyers of smolts and fry of salmond, and against stake-nets and mill-dams.

WILLIAM III, 1698, c. 3. Act anent pock-net-fishing upon the Water of Forth.

1698. c. 3.

His Majesty, with advice and consent of the estates of Parliament, prohibits and discharges all salmond fishing, or other fishing whatsoever, in the river of Forth above the Pow of Alloa, on both sides of the said river, with pock-nets, herry-water-nets, or other engines or devices whatsoever, not expressly allowed by law, and to the prejudice of the heritors, and their rights of salmond fishing in the said river: And empowers, warrands, and commands the sheriff-principal of the shire of Stirling, bailie of the water of Forth and his deputs, to suppress the foresaid unlawful and prohibite manner of fishing, and punish the users of the foresaid pock-nets, herrywater-nets, and other unlawful engines, by fining, not exceeding the sum of 20 l. Scots, *toties quoties*, or imprisonment, as they shall see cause, and to destroy all the foresaid unlawful engines. And that this they do, as they shall be answerable.

QUEEN ANNE, 1705, c. 12.

1705. c. 12.

‘For advancing and establishing the fishing trade in and about this kingdom.’ It sets forth, among other considerations, ‘the great and many advantages that may arise to this nation, by encouraging the salmon, white and herring fishing, they being a natural and certain fund to advance the trade, and increase the wealth thereof.’ And further, ‘that albeut there be several good acts already made to encourage and carry on that trade, yet they are either in desuetude, defective, or do not answer the present circumstances.’—‘Therefore that so great and general concern may take effect in time coming,’ the Parliament, in addition to certain provisions for encouraging the herring and white fisheries, also ‘ratifies and approves all former laws and acts of Parliament made anent the slaying and destroying of red fish, smolts and fry of salmon; and hereby requires and commands the judges therein mentioned to put these laws to due execution.’

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(*Lord Advocate.*) The result of the legislation in these statutes as regards fresh water proper may be stated in this way; as regards engines that are lawful of themselves, they must not obstruct absolutely the passage of the salmon; and any fixed machinery on the rivers proper that prevents the passage of the salmon is illegal; in the second place, I think it is also established that any unusual or novel mode of fishing by machinery in a river will not be permitted; the ordinary mode of fishing was by cruives and yares, as they are called, which are traps to catch the fish; I have a drawing of a cruive here in the Report of the Committee of the House of Commons in 1836 (*handing in the same*); that is the description of what are commonly called cruives, and it is the commonest mode of fishing by fixed engines in rivers.

9-10. *Lord Stanley of Alderley.*] All cruives are not exactly the same, are they?

No; I presume not; there are regulations for the width of the hecks, as they are called, of the cruives; they must not be less than a certain width, so as to allow the small fry to pass through, and there must be what is called the "Saturday slop," which is the opening of these cruives between the Saturday and the Monday; that is the law as at present; and therefore in regard to fresh water, the state of the law at present is that these contrivances are lawful if they are used according to use and wont, and according to the special provisions of the statutes.

11. *Chairman.*] Do those ancient statutes provide for a close season?

There is one of them, 1424, c. 35, that provides for a close season from Lady Day (15th August) to St. Andrew's Day (30th November), but that has been altered by the Home Drummond Act in 1829, as regards this. As regards those old statutes the law is as I have now said, and it will be a question for the Committee, whether these modes of fishing should be continued even in rivers. That is a matter much more of science than it is of law, but that is all that I have to suggest in regard to these statutes. The question of close time is another matter upon which, of course, I shall speak. Now these are the old statutes. There are two modern statutes; one the 9th of George 4, chapter 29, which is Home Drummond's Act, and that provides various penalties for fishing at forbidden times, and it provides that there shall be a close time from the 14th of September to the 1st of February.

12. *Duke of Richmond.*] In all rivers?

In all rivers. There was a special Act in respect to the Tweed in the next year.

13. *Chairman.*] What was the close time at the period that Act passed?

The first of William the Fourth, chapter 54, the Tweed Fisheries Act, which was, I think, a local and personal Act, provided a close time in the Tweed, from the 15th of October to the 15th of February, and for rod fishing, from the first of November to the 15th of February.

14. And that Act applies only to the Tweed?

Only to the Tweed. These, I think, are all the public statutes, with the exception of the statute of the 7th & 8th Victoria, chapter 95. I cannot say that I attach much importance to that Act, for it does not seem to have been framed with a very accurate knowledge of the state of the law upon the question. It was referred to in the case of Gammel, to which I am coming immediately.

15. Was not its professed object, to extend the application of the Act of the 9th of George the Fourth?

It was to extend the penalty to sea fishing, but it deals with the right of sea fishing in a very loose way, and I do not think that, in legislating on the matter, that that statute is very material.

16. *Lord Stanley of Alderley.*] Does the Act of the 7th & 8th of Victoria attempt to apply the principle of close time to the sea as well as to rivers?

No; it is to apply the penalties of Home Drummond's Act to persons fishing in the sea without leave from the proprietor of the fishings—a very loose expression.

17. *Lord Lovat.*] Was not that Act intended to prevent people coming in ships and boats on the west coast, and hauling the mouths of the rivers?

That may have been its object; but I do not pay attention to that statute, because

because the question to which it relates was reconsidered in the case of Gammell in the House of Lords, and I think the law upon the subject is now sufficiently clear. I remember, in the discussion in the case of Gammell, a good deal of difficulty was found from the looseness of the expressions in that statute of the 7th & 8th Victoria. There are, however, one or two Local Acts which it would be important to the Committee to keep in view. There are the Tweed Acts; first, the Act of 1857, which has been altered by an Act in 1859. The important clauses of that Act of 1857 are, first, the 41st clause, which defines the limits of the mouth of the Tweed to five miles; and secondly, the 55th clause, which prohibits the use of fixed nets and engines entirely.

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18. Earl *Cawdor*.] Within those limits?

Yes; and it prohibits leister fishing, and cairns; but those limits were altered or were varied in expression by the Act of 1859.

19. Lord *Polwarth*.] The old limits were in an Act previous to that, I believe?

Yes, in the first Act of William 4, chapter 54.

20. Was not there an earlier Act than that for the Tweed?

I cannot quite answer that question.

21. There was an Act as far back as 1830, and a previous Act to that, which also created a mouth to the River Tweed, that is to say, a certain portion of the sea coast was included?

I find nothing recited in this Act of 1857, earlier than that Act of the 11th George 4, which is the statute to which I have already referred. There was a special Act about the Tweed and Annan of the 9th July 1606, the 18th James 1; but it does not seem to relate to the limits. Then this Act of 1859 so far varied the limits of the Tweed, that in the fourth section of that statute, there is a very special description of those limits.

22. Earl *Cawdor*.] Did it extend the limits?

I think it did. The limits are so specially laid down that, without a knowledge of the locality, I could not answer the question positively. "The limits of the mouth or entrance of the River Tweed shall be deemed to extend, and shall extend, from the pier called Queen Elizabeth Pier, along the sea-coast on the south side of the said pier, to a point at high-water mark on the said sea-coast on the south side, distant seven miles, measured in a straight line from the lighthouse on the said pier, and along the sea-coast on the north side of the said pier to the point of boundary at high-water mark between the borough of Berwick-on-Tweed and the kingdom of Scotland, and shall also extend five miles in front of the mouth of the said river and of the whole line of sea-coast within the points of boundary hereinbefore mentioned into the sea, such distance towards the sea to be computed by lines drawn at right angles to a line drawn between the said northern and southern extremities, and the said limits on the south shall be deemed to include and shall include the fishery now known as the Holy Island station of the Goswick fisheries."

23. Lord *Stanley* of Alderley.] Does that Act of 1859 make any other alteration in the Act of 1857, except extending the limits?

There are special provisions as regards stake-nets and bag-nets in the 12th section.

24. What are they?

"All stake-nets and bag-nets set or placed beyond the limits of the mouth or entrance of the said river, as defined by the 41st section of the recited Act, and within the extended limits defined by this Act, shall be subject to the following provisions and regulations:—The nets used in the formation and construction of such stake-nets and of the leaders of such bag-nets shall be extended evenly in such manner that the meshes of such nets shall be stretched to their full opening. Every such stake-net shall be so placed and constructed as that clear openings for the free passage of salmon, as hereinafter provided, can be made in the traps or chambers thereof. In every such stake-net there shall be made and kept free from obstruction, during the whole period of the weekly close time, a clear opening of at least three feet in width in the traps or chambers of such stake-net from the bottom to the top thereof, so as effectually to allow of the free passage of salmon through such traps or chambers during the whole period of the weekly close time. Every such bag-net shall be so placed and

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constructed as that the netting of the leaders thereof can be raised and kept out of the water. The netting of the leader of every such bag-net shall, during the whole period of the weekly close time, be raised and kept out of the water." These are the provisions that are made with reference to these nets. Then there is a provision in regard to close time, which is here from the 14th September to the 15th February, excepting rod fishing, which is to be from the 30th of November to the 1st February, instead of from the 1st of November, as was the case before.

25. Duke of *Richmond*.] Is there any clause in that Act which gives increased power for protecting the rivers?

There are very special provisions in both the Acts for the preservation of the river.

26. Is there any clause relating to the present practice with regard to salmon fishing in Scotland, which is, that you imprison the poacher, and then fine the prosecutor, inasmuch as he has to pay for the maintenance of the poacher during the period he is imprisoned?

There are in these Acts very special provisions about the prosecution of offences in the 18th, 19th and 20th sections of the statute. The superintendent of the water bailiffs is the prosecutor, and that superintendent of water bailiffs, I presume, is paid by the proprietors on the river in proportion to the interests that they have under the first Act.

27. *Chairman*.] Is that the Act that now regulates the fisheries in the Tweed?

The two Acts together; the Act of 1857 is not repealed, I think, by the Act of 1859.

28. Lord *Polwarth*.] Does not the Act of 1857 repeal the previous Acts, so that the Tweed is now under the Acts of 1857 and 1859?

Yes.

29. *Chairman*.] The Act of 1857 is still in force, but certain of the sections of that Act were repealed by the Act of 1859?

Yes. With regard to the remark that has just been made, it certainly, in my opinion, would be an important matter for the Committee to consider whether anything similar to the Irish fishery legislation might not be followed with reference to the Scotch fisheries, and whether there might not be some means found of remedying in part the evil which has been suggested, by having some prosecutor appointed whose duty it should be, irrespective of mere private complaints, to see that the Act was enforced. It has been suggested (I do not wish to give an opinion upon the matter, because I have not considered it sufficiently) whether the Fishery Board in Edinburgh, or some such Board, might not have jurisdiction and powers with regard to salmon fishings in Scotland, such as the Irish Fishery Board at present possesses.

30. Duke of *Richmond*.] Are you aware that that was proposed to the Fishery Board in the year 1842, and that the Fishery Board, although they did not refuse, rather demurred to the proposition?

I am quite aware of that, and I think it is very probable that they might do so again if it were proposed; but still I cannot help thinking it might be beneficial.

31. *Chairman*.] Supposing such a provision to appear to the Committee to be advisable, do you think that the Fishery Board, as it is now constituted, would be an efficient body for carrying into effect such a provision?

I think it certainly might be made so; the subject appears to me to be a cognate subject, and it would be better to take advantage of machinery that subsists, than to be at the expense and trouble of setting up new machinery for that purpose.

32. Duke of *Richmond*.] I believe the Fishery Board at that time demurred a little, because they said they had not the power of detaching a member to the different localities to examine into the evidence, and that therefore it would be a very great deal of expense, delay, and trouble to them if all the proceedings were brought to Edinburgh?

I do not think that would be a practical difficulty; no doubt the staff of the Board at present would not be sufficient as it stands for the execution of such a duty; but I do not think that any material addition would be necessary. At the same time, as I have said, I have not considered the subject with a view to a practical measure, but I think it is a suggestion that is worth making.

33. *Chairman*.]

33. *Chairman.*] Do you know whether the coast guard are now empowered to act for the preservation and protection of the fisheries in Scotland?

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Not the coast guard; but there are revenue officers who are allowed to act under the orders or at the request of the Board of Fisheries; there is at this moment, if I do not mistake, a cutter in Loch Fyne which is placed at the service of the Board of Fisheries for the purpose of enforcing the law.

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34. Should you see any objection to the employment of the coast guard to give protection to the salmon fisheries?

It would be difficult to do so without having some other jurisdiction, at whose instance and upon whose request they should act.

35. Supposing the Fishery Board were empowered to act in that behalf, would not the coast guard be a very efficient body for the purpose of giving effect to their orders?

I am not prepared to say that they would not; at the same time, in all such matters, it is important to consider the particular relation which the men employed to execute the law have with reference to those against whom the law is to be executed.

36. Lord *Stanley of Alderley.*] Are there coast guard all round the coast of Scotland?

There are coast guard, but I am not in a position to say to what extent.

37. Duke of *Richmond.*] Do you know whether the jurisdiction of the Fishery Board extends to parts of England as well as to Scotland?

No, it does not extend to England.

38. Lord *Stanley of Alderley.*] Does not the jurisdiction of the Fishery Board extend to the Isle of Man?

No.

39. *Chairman.*] Are you aware that the coast guard are authorised by the Irish Acts to perform services with reference to the fisheries?

I am aware of that; but I expect that the staff of the coast guard in Scotland is a very limited one.

40. Duke of *Richmond.*] Do you see any reason, when a man who is convicted of salmon poaching, and is sent to gaol, that the prosecutor should pay for his maintenance in gaol more than in the case of any other man who violates any other law?

The reason is that it is not a criminal offence; it is a civil offence, which makes a man liable to a penalty; and if he does not pay the penalty, he must go to prison; therefore it is the same as with every other case of imprisoning a debtor: the person who imprisons a debtor, if that debtor cannot maintain himself, must maintain him under the statute 1696, called the Act of Grace, because he cannot be left to starve; that is the principle of it.

41. Lord *Polwarth.*] If an offence against the law relating to salmon fishing were considered a public offence, and not an offence against private parties, would not the public have a greater respect for it in that case?

I am afraid there is a great difficulty in that. In regard to ordinary poaching, it is not properly a criminal offence, unless it is committed under circumstances that result in danger to life, or the chance of collision or assault. Day poaching is not a criminal offence, although it is the subject of special statutory regulation, made the 2d & 3d W. 4. If you catch a man upon your premises, it is a trespass.

42. *Chairman.*] Night poaching is an offence?

Night poaching is an offence, because it leads to assault and murder.

43. Lord *Polwarth.*] Is not it the practice in Scotland that night poaching should be prosecuted by the parties interested privately, and not at the instance of the public prosecutor?

Whether night poaching of salmon should be placed in the same position as night poaching of game is a question which might be considered; but the same principle does not apply to it, because persons so engaged do not carry lethal weapons, and there is not the same danger to be apprehended from the implements used as from those employed in poaching game.

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44. Is your Lordship aware that collisions have occurred between night poachers and water bailiffs on the rivers and on the coast?

I have no doubt they have.

45. Both as respects sea fishings and river fishings?

There is no doubt of that also.

46. Lord *Stanley* of Alderley.] In the cases of offences against the game laws, where a person is prosecuted for shooting without a license, for example, he is imprisoned in default of payment, and in that case does the person who lays the information have to maintain the prisoner during the time he is in gaol?

I think so. It has been doubted whether the Act of Grace applies to a Crown debtor, imprisoned at the instance of the Crown under revenue statutes, but I think the better opinion is that it does. It has never, however, been so decided.

47. Lord *Polwarth*.] In those cases where there have been serious collisions, are you aware whether the prosecutions have been carried on at the instance of the parties interested, either privately or as commissioners of the rivers, or whether they have ever been taken up by the public authorities as offences against the public?

Certainly if there were serious injuries caused by any of those collisions, they would have been taken up just as any other assault would be by the public authorities; it would depend entirely upon the amount of injury inflicted.

48. Is your Lordship aware of cases in which the water bailiffs have been pelted with stones, and have been seriously hurt, and the nets and engines have been destroyed by the mob?

I am aware that there has been a great deal of riotous conduct on the part of river poachers, but I cannot recall any event of that kind important enough to have been reported to the Crown Counsel with a view to prosecution; there may have been such a case, but at the moment I do not recollect it.

49. Does your Lordship recollect whether a case did not occur on the Tweed within this year, in which a man was assaulted, and I believe dangerously wounded, in attempting to execute his duty as a water bailiff; I think the man's name was Way, and the case occurred near Colstead; is your Lordship aware (I do not know whether it would come within your knowledge and jurisdiction) that very serious riots at the mouth of the Tweed were apprehended this year, and they were obliged to hire a steam-boat to go up and down the mouth of the river in order to prevent sea poaching?

I can only say that those cases have not been brought to my immediate knowledge; it is only the cases of difficulty that come to me; but I have no doubt the Advocate Depute on that circuit at the time would be informed of the circumstances, and be able to answer the question.

50. Would it not be more advantageous to have this matter considered as a general crime, and would not it have a greater effect upon the population if salmon poaching were considered a crime against the law of the country rather than a crime against the property of individuals?

My own impression is, if I may be allowed to state it, that it is not desirable to make criminal offences of these things which are not so in principle, and have not been so considered. To stretch laws for the protection of game or fishings beyond the limit which custom and public opinion will justify, has a tendency not beneficial either to the preservation of game or to the general state of society; at the same time it is quite proper that civil rights should be protected as far as it is possible to protect them.

51. Duke of *Richmond*.] Is your Lordship aware of any Act of Parliament which renders it penal in the owner of a paper mill to use acids or other things in the process of making paper which would kill the fish in the river?

No, I think not, upon the statute law; but at common law no superior heritor or proprietor above the stream is entitled to pollute the stream below; he may be prevented from doing so, and has often been so. There is a provision in the Nuisances Removal Act, that passed some three or four years ago, about deleterious substances being put into streams, but I cannot say whether that applies to paper mills or not.

52. Are

52. Are you aware that of late years there has been a new process employed in making paper, and that sulphuric acid has been introduced largely in making parchment? *The Right Hon. the Lord Advocate for Scotland.*

I was not aware of that particular substance; I know very well that chemical substances are used in making paper, which, I have no doubt, are very deleterious to fish.

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53. Do you know at all whether that process has destroyed all the fish in some of the small burns not a great way from Edinburgh?

I have every reason to think that in the Esk the fish have been entirely destroyed, but I do not think I can more accurately state the law than that no superior heritor is entitled to pollute the stream running to the heritors below him; that may be and has been prevented.

54. Lord Polwarth.] You consider that upon principle a person has no right to pollute the stream so as to render it injurious to the animals, or the inhabitants below?

Not so as to make it injurious to the heritors below.

55. Chairman.] Have you any further statement to make to the Committee?

I think I have exhausted all that I have to say upon the Tweed fishery. There is a separate Act for the Annan, which was passed in the year 1841; it is the 4 Vict. chapter 18; and that, among other things, provides for the limits of the River Annan. It provides in the 46th section, "That for the purposes of this Act the limits of the shore or sea coast adjacent to the mouth or entrance of the said River Annan, shall be deemed to extend, and shall extend from the west bank or side of the water of Sork on the east to the east bank or side of the water of Lochar on the west, including the whole sea coast within these limits from the land on the Scotch side at high-water mark of spring tides into the sea at low-water mark of spring tides;" and there are also provisions in regard to stake nets in the 32nd section.

56. Lord Stanley of Alderley.] Is there any peculiarity in that provision which differs from the provision in the case of the Tweed?

The provision is, "That during the period of weekly close time hereinbefore enacted, every owner or occupier of any such stake or raise nets, fish lochs, coops, bays, or other works, shall at or before the commencement of the said period of weekly close time, make a sufficient opening in the lower part of the back or sea side of the same, of not less than four and a half feet in height from the bottom of the net, in such manner as to permit and secure a free and sufficient passage for the fish up and down the said river;" that is the substance of it. There is a recent Act for the Tay in the year 1858, providing, "That this Act shall be applicable to and be enforced in and with respect to the river Tay and the lakes, rivers, streams, and waters communicating with or flowing into the same, and the sea coasts within five miles of the mouth of the said river." And that introduces also a close time between the 26th of August and the 1st of February: "It shall not be lawful for any person to take, fish for, or attempt to take, or to aid or assist in taking, fishing for, or attempting to take, any salmon in or from the river Tay, at any time between the 26th day of August in any year, and the 1st day of February in the year following, except by means of the rod," and then the period of the rod fishing is between the 1st of February and the 30th of September, that is to say, from the 1st of October to the 1st of February.

57. Chairman.] Is the law on the Tay, with regard to the weekly close time, the same as under the general law?

Yes, there is also an Act for the Solway, of the 5th of June 1804, but I do not think it contains anything that is material upon the question before the Committee. The reason of the exception in the old statute of Queen Mary in regard to the Solway was, that one side was English, and that if they could not enforce the restrictions on the English side, they saw no reason why they should be enforced on the other.

58. And that difficulty would still exist?

I think it would. Now, those are the statutes, and in regard to them, I think I may suggest to the Committee what probably would occur to them, that a consolidation would be a very great advantage. Whether you could

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consolidate the statutes so as to make a code for all rivers may be very doubtful, but that these old Acts, upon the construction of which there is so much question, might be repealed, and a general consolidation act passed, I think, is plain, and from the question I am now going to speak to, it is obvious that there would be a great advantage in doing so. The question which has given rise to more discussion than any other, relates, not to rivers proper, but to the estuaries of the rivers, and as to the meaning to be given to those passages in the statutes, prohibiting fixed machinery, where the sea ascends or descends, or where the salt and the fresh water mix. That, I think, may now be held to be settled, if it can be called a settlement, by being held, in each individual case, a question for a jury to determine. The first important case that occurred upon this subject was the Tay Fishery case in 1812, and there it was held that the prohibition of the statutes, as applicable to the Tay, extended as far down as the Drumley Sands, which, I think, are below Dundee, and therefore any fixed machinery between high-water mark and that point, was within the position prohibited by the statute. The next case was the case of Lord Kintore, as to the fishing in the river Don, where the question arose whether the prohibitions of the statute extended to the sea, and the Court held there that the statutes did not extend to the sea, and that, therefore, fixed machinery was not illegal in the sea, apart from all questions of estuary or river. I may mention that, about that time, I think, in 1822 or 1824, the system of fishing by bag nets was invented, and introduced. I do not think they were used earlier than 1822, as far as my information goes; it is that circumstance which has given so much importance lately to the question of where estuary ends and sea begins.

59. Before that time, was the fishing exclusively carried on by what is called the net and coble?

There were stake nets and a variety of modes of catching the fish, but none so successful or so injurious to the river proprietors as the bag nets. The next case is *Mackenzie v. Home* in regard to the Cromarty fishings, and the case of *Bruce v. The Duke of Sutherland* in regard to the Dornoch fishings. Both those cases went to the House of Lords, and there was no very decisive result obtained as regarded the point of law; but those cases have been held to fix this, that the position pointed out by the statute where the fixed nets are prohibited is not a definite line and is not necessarily low-water mark, or where the fresh and salt water join; that is to be decided by a jury upon the facts of each particular case. The elements for decision are, substantially, not merely the ordinary flow of the river or the flow of the tide, but the nature of the water, its comparative density; the presence or the absence of marine plants, and the presence or absence of fresh water plants, or the strength of the fresh water stream as against the salt water stream; all those matters enter into the question whether the particular position where the nets are placed, is within or beyond the prohibited position. The last case which was tried was a case that was tried last year, in which I was counsel, and the Committee will see what the question was by the issue that was sent to the jury. It was a case about the river Findhorn; "Whether in the years 1857 and 1858, or either of them, the defenders, or any of them, fished for salmon at or within the entrance or mouth of the river Findhorn, betwixt the position of the lines A. B. and C. D., shown on the judicial plan, No. 33, of process, by means of stake nets or other fixed machinery of a similar nature, placed in situations, or in a situation, prohibited by statute." That was a case in some degree remarkable. The river Findhorn had changed its course some years ago; in consequence of a great flood it had broken through the sandbanks that were about a mile and a half from the old mouth, and had formed a kind of estuary, completely covered with salt water at high tide, which remained dry at low tide. The nets were placed very far to seaward, in the lower part of the estuary, but the jury found that they were in a situation prohibited by the statute. Now that is the state in which the law remains, and it will be for the Committee to say whether it is practicable to bring it to a more definite point. It has been suggested that a commission might be issued to determine the position, and where the statutory or prohibited places terminate in each of the larger rivers, and if the law is to remain as at present in regard to those prohibitions, I think that would be a very desirable thing to do. I do not know that there would be any practical engineering difficulty in doing it. But it will be for the Committee

Committee to consider whether these fixed engines should be used at all: and this leads me to the last matter with which I have to trouble the Committee, I mean the law as regards sea fishings. For a long time the rights of the Crown and of private proprietors as to salmon fishing in the sea remained undecided; indeed, until this system of fishing by bag nets was introduced, the sea fishings were not comparatively valuable; latterly they have become of greater value. In 1849-50, a question arose between Mr. Gammill, upon the east coast, and the Crown, as to whether he required a Crown right in order to fish opposite his own lands in the sea, there being no question of river at all. It was decided by the House of Lords ultimately that the Crown had a property in all the salmon fishing round the coast of Scotland, to the extent to which the territory reaches; and, as the territory reaches three miles from the coast, it must now be held to be the law that the Crown has an absolute patrimonial right to all the fishings round the coast, a right to exercise that right, and a right to grant it.

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60. *Earl Cawdor.*] Independently of any property which the Crown has between high and low-water mark?

Yes; independently of any property which the Crown has between high and low-water mark; of course that question, to a certain extent, is correlative; it depends on the supereminent right of the Crown to the land of the realm. This right of the Crown to salmon fishing in the sea is not merely a trust for the public, but it is a patrimonial right which the Crown may use and make money of.

61. The salmon fishery, but not the shore?

Upon the question of the shore, at this moment, I do not express any opinion; I think that is a very difficult question; it is quite clear as regards the shore, to a certain extent the exercise of the right of the Crown is limited, because there are public uses to which the shore may be put.

62. *Chairman.*] What are called in England "easements"?

Yes; that is not our term, but the substance of the thing is the same.

63. *Lord Stanley of Alderley.*] After all, is not the question of the right to the foreshore involved, inasmuch as no stake net could be used without its being established upon a part of the land between high and low-water mark?

I should be very sorry to express any doubt of the right of the Crown to the foreshore. I do not think that that is a question which admits of any doubt in Scotland. I think however that the mode in which that right should be used is a very different and important matter, but the foreshore I should hold as a matter of law to be certainly vested in the Crown. I do not say that it is an unqualified right; it is necessarily qualified by many public uses of which the public cannot be deprived.

64. Do you think the Crown can deprive the subject of the right of access to the sea?

I think certainly not.

65. *Lord Polwarth.*] You have laid it down as an established maxim that the Crown has the right of fishing upon the sea coast?

Yes.

66. With respect to fresh water fishing in the lochs and small streams, where there is not an express grant of salmon fishing, do you conceive that the Crown has the right of fishing? Where a person holds lands with the fishings as they were held by certain abbeys formerly, as in St. Mary's Loch, there are persons holding the fishings as they were held by the Abbey of Melrose; in that case do you conceive that the Crown has the right of salmon fishing in that loch, and can grant it now if it thinks proper?

Not if that right has been exercised for 40 years. If the person holding that right with the fishings, as they were held by the abbey, has been in the habit, for 40 years, of exercising the right of salmon fishing, that would give a good title if it is a title *cum piscationibus*, as I said before, though salmon fishing is not expressed.

67. If there is a title which, in general terms, grants the fish in that part of the water, and it has not been used for the taking of salmon, will that right remain in the Crown?

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Of course a great deal will depend upon the special nature of the titles as to whether they do pass salmon fishings or not, and also upon the possession. If there is no title or possession, it is vested in the Crown and might be granted.

68. If there is a right of salmon fishing it is generally expressed in the title deeds, as either held with the lands, or there is an express grant from the Crown in cases where the fishings are mentioned, but where nothing is mentioned with respect to the salmon fishing, and it has not been used, in that case the person does not claim it under prescriptive right, does the Crown still retain the right of salmon fishing?

Yes.

69. That would apply to all fresh water streams, lochs, and everything else where there is not an express right of salmon fishing granted by the Crown, or where a person has not acquired the right by prescription?

Yes; I have explained that the right of salmon fishing is a separate estate, and may be granted separately apart from the property on either bank of the river. I was endeavouring to elucidate the matter in regard to the sea shore. We were speaking of the right to the sea shore. It is now the law that the Crown has a right to these salmon fishings all round the coast; and, I think, it will be a most important question for the Committee to consider whether that right ought not to be exercised entirely for the benefit of the salmon fishings. I must confess that my own opinion is very strong indeed upon that subject. I do not think it is right that the Crown should attempt to make a revenue from the salmon fishings, excepting in the way in which that can be done most favourably for the preservation of the breed of salmon. It is a very important matter to the salmon fishings that the decision was given in that way, because it puts it in the power of the Crown, I think, to do a very great service to these fisheries. It is a matter of science to a certain extent; of course, the Committee will have good evidence upon that subject; but if it should appear that bag nets in the sea are really destructive to salmon fishings in the rivers, which is a very general opinion, I should think the Crown should prohibit in all leases to be granted of salmon fishings in the sea, the use of those fixed engines. The best use which the Crown could make of the rights would be to grant leases to those interested in the river fishings, with authority to fish by the net and coble, and with a prohibition against fishing by fixed engines, and an obligation to prevent others doing so. I think if the Crown rights were granted in that way, it would be most beneficial to the salmon fishings; on the other hand, I should be sorry to see a system of granting leases to private proprietors of fishings in the sea for inconsiderable rents, so that the person taking the leases would have no interest in the river fishings at all, and only be desirous to catch as many fish as he could.

70. *Chairman.*] Have you any other suggestion to make for the amendment of the law?

I think not. The suggestions I have made are, in the first place, for a consolidation of the old statutes; in the second place, as to the use of fixed machinery in the rivers; I mean the cruives, although it is not a matter, perhaps, upon which I am much entitled to speak.

71. Will you be good enough more fully to explain the suggestion which you made with regard to the cruives?

The suggestion which I made was, that they should be prohibited altogether. The third point is in regard to the extent to which those prohibitory statutes go; my own opinion is, that the simplest way of deciding that matter would be to prohibit the use of bag nets or fixed machinery altogether. If the sea were put in the same position as the rivers, there never could be a question of the kind; and if the Committee come to the opinion that the fishings in the sea are really as destructive to the spawning fish running for the fresh water as the fishings in the estuaries, that would be the natural result at which they would arrive.

72. *Duke of Richmond.*] Have not cruive dikes been granted by the Crown; and have they not been put into entailed estates?

Yes.

73. Do

73. Do you think it would be just to take away from a man who has a bag net four miles from river A, and who has no property at all in river A, his right of fishing, and not give him any compensation for it?

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The same principle might be applied to all those restrictive Acts, because, of course, the things that are prohibited for the first time, were used before they were prohibited. If the bag net is detrimental to the general interests of the salmon fishing, and I do not know that the fact of its having been used would give a good claim for compensation, the more so, as they are of modern introduction. Cruives and yairs, no doubt, are a very old, and subject to the statutory restrictions, a legal mode of fishing; but they are prohibited altogether in the Tweed Bill, and although the cruives, I admit, stand in a different position, there may be difficulty in what has been suggested; I do not think the difficulty insurmountable. Legislation in the sense I have suggested would proceed on the assumption of general benefit to all, by protection and improvement of the breed of salmon. As regards the sea fishings, I think there is little difficulty. The Crown parts are comparatively few.

74. Do you not think it is better, on the general principle, if you benefit the river proprietors by taking away property from others, that those river proprietors should be assessed to give some compensation to those people whose property is taken away?

The question will only arise upon the Crown grants, where there has been a Crown grant of fishing in the sea, and that fishing has been exercised by means of bag nets. There are not a great many cases of stake nets, and I do not know that they should be prohibited, because they are not nearly so destructive as the others. Those are limited, and I do not think any general legislation would necessarily interfere with the case of Crown grants of sea fishing. They might be specially excepted.

75. *Chairman.*] Have any grants been made by the Crown of sea fishings subsequently to the invention and use of bag nets?

There have been some, but not many.

76. Do you suppose that the grants that were made before the invention of bag nets conveyed with them the right to take salmon by any and every means?

Yes, that is the result of the judgment of the House of Lords; because the judgment comes to this in Lord Kintore's case, that it is the law that any mode of fishing is legal in the sea.

77. Did not Lord Lyndhurst decline to express an opinion upon that point?

There is rather an ambiguous sentence upon that matter in reference to grants which expressed fishing by net and coble; but that was the ordinary mode of fishing formerly: but I do not see any principle upon which you could prevent any mode of fishing in the sea unless the statute is extended.

78. Your opinion is, that the grant conveyed to the grantee the right to take salmon by every possible means?

I think so, in the sea. There is no statutory prohibition, because the statutes have been found not to extend to it; and, without statutory prohibition, I see no law to overcome the common law principle.

79. *Lord Polwarth.*] As a general principle, the salmon, being wild by nature, should be taken as it passes, and not impeded in its movement?

You may take it anywhere, unless there is statutory prohibition to restrict you.

80. You must not restrict its passage?

Under the Acts you cannot restrict its passage.

81. On the sea coast, do you conceive that that power exists?

On the sea coast you may take it in any way you can arrest it.

82. *Chairman.*] You have stated that you think it expedient that a Board for the superintendence and general management of the salmon fisheries should be established; what powers would you recommend that Parliament should give to such a Board?

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I am really not in a position to give a definite answer to that question at present; it is a matter I have thought of generally, and I thought it right to throw out the suggestion.

83. Lord Stanley of Alderley.] Has it occurred to you that it would be desirable to have a commission for the purpose of defining the limits of rivers, and also to lay down some rule of close-time in different localities, so as not to make one rule applicable to all rivers in Scotland?

I think a commission would be very desirable for both objects, more especially if any fixed engine fishing is to be allowed hereafter; it would be very essential to have the limits defined; the close-time in one river is not found to be appropriate to some others.

84. That is to say, that the close-time that is suitable to one river is not suitable to another?

Exactly.

85. Lord Polwarth.] You would leave a discretion in the hands of the Board with regard to regulations of that description?

Yes.

86. Lord Colville of Culross.] Were cruives in existence at the time of the passing those first Acts?

Yes; there are provisions from the earliest period with regard to cruives as to the mode in which they are to be erected, and the space left between them for the passage of the fish, and if they are erected according to these provisions they are legal.

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87. Chairman.] YOU are one of the Commissioners of Woods, Forests, and Land Revenue.

I am.

88. Have you had occasion in that capacity to consider the rights of the Crown in reference to the salmon fishings in Scotland?

I have.

89. Have you caused any steps to be taken to enforce the rights of the Crown in respect to those fishings?

I have.

90. Can you give any information upon that subject to the Committee?

After the decision of the House of Lords of last Session, in which it was established that by the law of Scotland all sea-coasts fishings belonged to the Crown, I issued a circular to the proprietors all round the coast of Scotland, calling upon them, either to produce their titles to the salmon fishings on the sea coast *ex adverso* of their properties, or failing their being able to produce any titles, to take a lease of those fishings for a short period (the remainder of 1859, 1860, and 1861) at a fair and moderate rent. I had better state, that in 1846, when this question first attracted notice, it was thought advisable to employ a competent person to go round the coast of Scotland and to make inquiries, and report as to the number of proprietors round the sea coast who were exercising rights of fishing, and also as to their titles, and whatever other evidence he was able to produce. Mr. Kenneth Macleay was employed upon that service; he was employed during 1846, 1847, 1848, 1849, and 1850, I think; he gave some very valuable information upon all those points, and the number of fishings, I think, which he reported upon, amounted to 615 round the entire coast of Scotland, with the exception of a small part of it on the Frith of Forth. After the decision in Gammell's case, I issued a circular to 345 proprietors whose cases required investigation; the number of titles that are at present considered to be established are about 115; the number of leases agreed to be taken, or already granted, are 29; the number of cases still under investigation are 180, and the number of cases in which no answer was sent to the circular is 127.

91. Lord Stanley of Alderley.] In the case of those rights which were established, were they all rights which had emanated originally from the Crown, or by prescription, or both?

Both.

Both. Some were under charter from the Crown; where, as the Lord Advocate stated, the special words were introduced, *cum piscationibus salmonum*, in others, *cum piscationibus*, or *cum piscariis* only, and then they have established their right by prescription.

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92. Are there many of those cases established by prescription only?

I cannot answer that from memory with precision. I think probably the solicitor will be able to give you more correct information than I am enabled to do upon that point.

93. Lord Lovat.] Are the river fishings included in those numbers?

No; there is no question as to river fishings; the river fishings have not been disputed; I know of no case in which river fishings are not held under charter from the Crown; the numbers relate only to the sea coast proprietors.

94. Duke of Richmond.] You have stated the number of leases that have been granted since the late decision of the House of Lords; did you grant any leases from the year 1840 to 1850?

In the year 1846, measures were taken for letting ungranted fishings to *ex adverso* proprietors for the term of 10 years at moderate rents, and five lettings of fishings at rents varying from 2*l.* 10*s.*, the lowest, to 20*l.*, the highest, were actually granted; that was in the year 1846, or about that time.

95. The gentlemen who had exercised those fishings became alarmed at the idea of the Crown claiming them, and therefore, to quiet them, you allowed them to have leases?

They agreed to take leases at moderate rents.

96. Lord Stanley of Alderley.] Were none of those leases granted in 1846 at longer periods than 10 years?

I believe that was the time.

97. Was a new lease granted at the expiration of that period?

I cannot at the present moment give the dates at which those leases were renewed.

98. With regard to those 29 leases which have been granted, for what period were they granted?

Some of them were for the period that I have stated, as mentioned in the circular, till 1861, subject to any restrictions that Parliament in the meantime might think fit to prescribe.

99. Were any of them for a longer period?

None of those granted in consequence of the circular.

100. Chairman.] You heard the evidence given by the Lord Advocate?

I did.

101. Do you concur in the opinion expressed by him, that the Crown ought not to make its rights in respect of salmon fishings on the sea coast a source of revenue, but ought to use them exclusively for the benefit of the salmon fishings?

No; I am bound to say I do not entirely agree with the Lord Advocate upon that point. I think it right, at the same time, I should state that, in my opinion, there are very grave objections to the uncontrolled use of stake and bag nets. I am very anxious (no man is more anxious than I am) to improve the breed of salmon, and to do anything that I properly can tending to the preservation of the salmon; but, at the same time, I think it is clearly part of my duty, and, probably, the House of Commons would say it was also, that I should take care of the public revenue, and see that the public revenue is not damnified further than necessity really requires.

102. Earl Cawdor.] In what way were the rents you fixed in those cases calculated?

They were calculated upon an average of the fishings for a certain number of years; then half that annual value is agreed to be taken as rent. If the value of the fishings amounted to 10*l.* a year, the rent was fixed at 5*l.*; if it was 5*l.*, the rent was fixed at 2*l.* 10*s.*

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103. *Chairman.*] How do you propose to reconcile the pecuniary interest of the Crown with the increase of the breed of salmon?

It is a difficult question; but I did think at one time, and I am rather of the same opinion now, that it would be a very advisable thing if river proprietors were to combine, and to take a lease of the sea coast fishings for a term of years, and for an extent, say, of five or seven miles on each side of the mouth of their rivers, at a fair rent, and then they might do exactly what they pleased with their sea fishings; they might take away the bag and stake nets, or they might use them under certain regulations if they chose.

104. *Duke of Richmond.*] Supposing that this Committee were of opinion that stake and bag nets were very prejudicial to the breed of salmon, would it not be the easiest way to say that the river proprietors, who would benefit by their removal, should be assessed and pay to the Crown the value of the benefit that they obtain?

I think it is hardly just to deprive one set of proprietors of their property to their pecuniary loss, and without any compensation, for the pecuniary benefit of another set of proprietors; I think that is hardly fair, and therefore I must say, I think it may be a fair question, whether some compensation ought not be paid; whether by the river proprietors or by whom is another question.

105. If the river proprietors are the people who get the great benefit, surely they are the people who ought to pay those whose property they take?
Possibly.

106. *Lord Stanley of Alderley.*] In stating that the Crown ought to be compensated for this right it possesses, and not give it up for the benefit of the public and the benefit of the salmon breed, you speak, of course, as a Commissioner of Public Revenue, bound to do the best for the maintenance of the property which is entrusted to you by the Crown?

I do.

107. Supposing that that question was settled, or that Parliament should be of opinion that such right should not be exercised and insisted upon, is it your opinion that it would be desirable for the benefit of the salmon that those bag nets in the sea should be abolished or regulated?

I think that the Lord Advocate's suggestion, namely, that the Crown should give up all its right to bag and stake nets, and that in all future leases bag and stake nets should be prohibited, would have this result, that the public revenue would be damnified, but that the breed of salmon would not be improved; because those holding under grant from the Crown their sea-coast fishings would not give up their bag and stake nets, but would catch the salmon which would pass by the fisheries where the Crown bag nets and stake nets had been taken away, and then they would enter the other bag nets and stake nets, held under existing grants.

108. *Earl Cawdor.*] Do you happen to recollect whether, previous to the decision of the House of Lords in the case of Gammell, certain leases were granted of salmon fishings on the coast of Scotland on very small terms, as low as 1*d.*?

I never heard of them.

109. I think I have seen that in a paper relating to Gammell's case?

I never heard of it; the lowest lease granted by the Commissioners of Woods in 1848 is 2*l.* 10*s.*, and the highest is 20*l.*

110. In leasing those fisheries, have you let them to what you call *ex adverso* proprietors only, or have you let them to other persons?

We always offer them to the *ex adverso* proprietors, I think, in every case; we have done so hitherto.

111. *Lord Stanley of Alderley.*] I think you have stated, in all those leases which have been granted they have been granted for the sea fishings, and there is no instance in which you have granted a lease of a fishing in a river; is that the case?

Yes; the river fishings have, I believe, long ago been granted; I never had a case of river fishings applied for.

112. Do

112. Do you believe, then, that in point of fact, there are no river fishings but what have been granted?

I know of none at present.

113. But if there were any river fishery, and the neighbouring proprietors could show no grant or charter entitling them to that fishery, do you think you have the right, on behalf of the Crown, to prevent anybody fishing in that river unless they took a lease from the Crown?

That is a question for the Lord Advocate; it is a legal question; I think the Lord Advocate has answered that; he said in that case the right of fishing would be in the Crown.

114. In point of fact, if the law as laid down by the Lord Advocate is correct, you would claim, on behalf of the Crown, the right of preventing any person even from fishing in a river, if they could not show that they had already the right by grant from the Crown, or by prescription?

Yes.

115. Lord *Polwarth*.] You spoke of the question of compensation; would you not think it hard, if parties had placed stake and bag nets near the mouth of a river, destroying the value of the river, that you should assess those parties to make them buy up that which has become valuable in consequence of their loss?

They have established a right of property in those bag nets and stake nets, and I think if you deprive them of that property they may have a right to compensation in some way.

116. The bag net, as I understand, was not used previously to the year 1822?

Not to any extent, but stake nets were used in the Solway before.

117. *Chairman*.] Have you any further information to give, or any suggestions to make upon this subject?

No; I agree with what the Lord Advocate suggested as to some body, either a fishery Board, or some Board of Commissioners, such as exist at present in Ireland, being established in Scotland, either temporarily or permanently, for the purpose of regulating the salmon fishings generally. I believe that that has acted well in Ireland, and no doubt it would do so in Scotland.

118. Have you sufficient knowledge of the composition of the Fishery Board in Scotland to be able to say, that it would be a competent tribunal for the purpose?

No.

119. Lord *Stanley* of Alderley.] Can you speak as to the rights of the Crown to the salmon in Ireland?

No, I cannot.

120. No leases have been granted by the Woods and Forests to any parties for salmon fishings in Ireland?

No, I do not know in what way any exclusive fisheries are held, whether by charter or otherwise.

121. The Crown has not put forward any claim in Ireland or in England?

No; I have nothing to say to salmon fishing, either in Ireland or in England.

HORA CE WATSON, Esquire, examined :

122. *Chairman*.] YOU are the solicitor to the Commissioners of Woods and Forests and Land Revenue?

I am, except in regard to the Royal Forests.

123. You heard the evidence given by Mr. Howard?

I did.

124. Have you any observation to make on the answer given by Mr. Howard to the last question?

I desire to state, with regard to the rights of the Crown to fisheries in Ireland,
(135. 1.) D that

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that the right to salmon fishery in Ireland is now regulated by Act of Parliament, which gave to persons the right to salmon fishing on the sea shore, and that, I believe the War Department do claim the right of salmon fishing on the shore opposite to the property under the charge of that department, but I am not aware of any claim to salmon fishing by the Office of Woods, with which I am connected.

125. When was the Crown property in Scotland placed under the charge of the Commissioners of Woods?

The Crown property in Scotland, up to the year 1832, was under the management of the Barons of the Court of Exchequer in Scotland, it was placed under the management of the Commissioners of Woods by an Act of Parliament of the 2nd and 3rd William the 4th, chapter 112. I must state, with regard to the subject of this inquiry, that at the time when that Act was passed, there were no leases of salmon fishings actually in existence, there were a few feu duties reserved to the Crown under charters which had been previously granted, but there were no leases for a term of years current in 1832.

126. When was the attention of the Commissioners of Woods first directed to the rights of the Crown in respect of these salmon fishings?

The attention of the Commissioners was first directed to that subject in the month of December 1845, by an application which was made to them by a gentleman for a lease of some fishing, I think at South Queensferry, in the Frith of Forth; that led them to investigate the subject, and an inquiry was made as to the fishings which had been granted, those which had not been granted, and those which were held adversely by prescription round the whole coast of Scotland, and the result was, that upwards of 600 distinct fishings were found to exist. Then these five leases were granted which have been already referred to, and it would be probably convenient, on a future occasion, that a schedule, stating the exact terms on which those and the other leases have been granted, or agreed to be granted, should be handed in. Any information that I can give on those details could be stated more conveniently in a schedule.

127. Can you state the minimum and maximum rent?

The minimum was 2 l. 10 s., and the maximum was 5 l., I think.

128. Earl Cawdor.] Were the rents calculated upon the principle mentioned by Mr. Howard of a certain proportion of the net produce?

I think Mr. Howard was referring to leases subsequently granted. With regard to what your Lordship said as to leases at 1 d. Scots, I think that had reference to old grants by the Crown, of which I have a schedule here. This is the document which was given in evidence in the case between the Crown and Gammell, and contains a list of all the grants by the Crown of salmon fishings in the sea, or which were presumed to be in the sea, and of which the Crown could procure evidence at the time when that case was under litigation in the Court of Session. The object of proving those grants was this: it was alleged by the defenders in the case of Gammell, that although the Crown had the right to the salmon fishings in the rivers and estuaries, that right had always been exercised in the rivers and estuaries alone; that it was a prerogative right which was in derogation of the right of the subject, and that the law ought not to be enlarged beyond the exercise of the right; and that as the Crown had not made any grants in the sea, consequently the prerogative right must be held not to extend to the sea; and therefore the Crown had no right there; and all those grants were given as evidence to rebut that contention, and to show not only that the prerogative right did exist, but that grants had been made founded upon that right. And, if you will permit me, I will hand this in; it is evidence in the cause, and shows, I do not say a complete list of all the grants that have been made, but it shows all those which the Crown at that time was able to prove had been made.

The following document is delivered in:

I. EXCERPTS from the VOLUMES of PRINTED RETOURS to CHANCERY, showing GRANTS of SALMON-FISHINGS in the Sea or in Salt Water, dated prior to the Union.

L. Watson, Esq
15th May 1860.

ABERDEEN.

RETOUR—Andrew, Lord Fraser, 25th April 1637.—‘Villa et terris de Carneculge cum piscatione super mare salsum infra baroniam de Phillorthe.’

Retour—William, Earl Marischall, Lord Keith and Altrie, 10th October 1637.—‘Salmonum piscationem de Innerugie in aqua salsa et recenti’ ‘Toweir de Kintor et salmonum piscatione dictarum terrarum super aqua de Done.’

Retour—Patrick, Earl of Kinghorne, 15th June 1648.—‘Cum dimidietate salmonum piscariæ super aqua de Dovrane vocatæ Thaynes Nett, et dimidietate assissæ lax et salmonum piscarium in mare vocatarum Craigslope apud Downe, cum dimidietate aliarum salmonum piscarium tam in dulcibus quam in salsis aquis super dicta aqua de Doverane.’

Retour—John, Earl of Strathmore and Kinghorne, 29th October 1695.—‘Salmonum piscarias in mari vulgo nuncupatas Craigshott apud Donn, per omnes partes et in utroque latere ejusdem.’

AYR.

Retour—Archibald Kennedie of Culzeane, 17th April 1672.—‘Terrarum de Grenane, cum piscatione lie Yaires et Cruives et cymbis in mari, et cymbis piscatoriis salmonum.’

BANFF.

Retour—Patrick Earl of Kinghorne, 15th June 1648.—‘Et Salmonum piscium in mare vocatæ Craigslope apud Downe una cum dimidietate aliorum salmonum piscium tam in dulcibus quam in salsis, aquis super dicta aqua de Doverane.’

Retour—John Earl of Strathmore et Kinghorne, 29th October 1695.—‘Salmonum piscarias in mari vulgo nuncupatas Craigshott apud Doun per amnes partes et in utroque latere ejusdem.’

CAITHNESS.

Retour—Mr. James Innes, 7th July 1640.—‘Cum molendinis et piscationibus in aquis dulcibus et salsis tam salmonum quam aliorum piscium infra bondas terrarum ante dictarum cum cymbis piscatoriis, portubus, anchoragiis, forrestis, &c., infra bondas prædictarum terrarum in parochia et baronia de Rhæ.’

DUMFRIES.

Retour—Sir Richard Murray, of Cokpuill, 28th March 1621.—‘Piscaria salmonum aliorumque piscium in aqua de Annand infra senescallatum Vallis Annandiæ; piscaria salmonum aliorumque piscium de lie Skarris et Cowpis de Cumertries in aqua de Sulway.’

Retour—James, Earl of Annandail, &c. 30th March 1641.—‘Piscaria salmonum et aliorum piscium in aqua de Annand inter limitem de Brydkirk, et pedem aquæ de Annand currentem in aquam de Sullway subtus Barnkirk comprehendente lie Garths et paludes subscriptas viz. Kingisgarthis Blackpoole Pool under Gallowbank Brigpoole et Motpoole cum omnibus aliis gairthes puiles, &c. infra bondas supra specificatas infra senescallatum vallis Annandiæ; piscaria salmonum et aliorum piscium de lie Skarris et Coopis de Cumertries inter torrentem vocatum The Newberk de Newbie currentem in dictam aquam de Sulway,’ &c.—‘cum omnibus alus lie drauchtis hauldis laikes et nettis infra bondas suprascriptas.’

Retour—David Marquis of Stormonth, &c., 7th October 1668.—‘Piscariis in omnibus lacubus in Valle Annandiæ; piscariis salmonum et aliorum piscium in aqua Annandiæ Gairth et Gairthheid’—‘piscaria vocata Herriescarie in Cumertries super aquam de Sulway infra senescallatum vallis Annandiæ.’

FORFAR.

Retour—Robert Durhame, 10th October 1574.—‘Terris dominicalibus de Grange et piscariis tam in mari quam in aqua dulci.’

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Retour—

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Retour—James Halyburton, 21st April 1619.—‘Cum piscaria in mari et aqua de Tay.’

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Retour—David Halyburton, 22d October 1672.—‘Cum piscationibus in mari et aqua de Tay.’

INVERNESS.

Retour—Charles M’Killeane, 26th September 1603.—‘Cum piscariis in aquis salsis et dulcibus infra dominium insularum et vice comitatum de Inverness.’

Retour—Lord George M’Kenzie, 22d January 1662.—‘Terris de Helsker in Insula de Wist cum piscariis tam in aquis recentibus quam salsis.’

Retour—Lilias M’Kenzie, 12th October 1693.—‘Et piscariis et Yair nuncupata Car-risluack aliisque piscationibus tam in aquis salsis quam dulcibus infra dominium de Lovat.’

KINCARDINE.

Retour—Robert Arbuthnott, 30th April 1633.—‘Cum piscatione salmonum aliorumque piscium super aqua de Bervie ac in ostio et faucibus ejusdem.’

Retour—Mr. Arthure Straitoune, 18th September 1657.—‘Salmond-fishing and teynd their of, in the sea, with the parochin of Eglesgreig.’

Retour—Robert, Viscount of Arbuthnet, 1st November 1695.—‘Piscatione salmonum et aliorum piscium super dicta aqua de Bervie ac in ostio et faucibus ejusdem tam in salsis quam in aquis dulcibus.’

NAIRN.

Retour—David Hay, 17th April 1607.—‘Cum piscariis terrarum de Lockloy et In-scheoch, tam salmonum quam aliorum piscium, tam in aquis dulcibus quam salsis.’

Retour—John Hay, 15th January 1640.—‘Cum piscariis dictarum terrarum de In-scheok tam salmonum quam aliorum piscium, in aquis dulcibus et salsis.’

Retour—Simon Frasier, 3d March 1659.—‘And salmond fishings and uther fischings of the yair of Aliak callit Corrynagald, and uther fischings als well in the sea as in the watter of Cruan, lying of ald within the thayndome of Calder, and now united into the barronie of Kinkell-Fraser.’

Retour—Sir Hugh Campbell, 6th February 1662.—‘Cum piscatione salmonum, &c. in mare et in aquis de Findhorne et Findmonie.’

ROSS AND CROMARTY.

8th March 1608.—Retour Robert Munro:—‘Terris et villa de Mehil Clyne et litell Clyne cum molendino earund, et suis multuris et salmonum piscariis tam in aquis salsis quam dulcibus ja centibus in Comitatu de Ross regalitate de Spynie, &c.’

17th June 1623.—Retour—George Munro.—‘Piscaria unius cymbæ lie cobill fisching super sexta parte aquæ de Keillishockell tam in aqua salsa quam dulci—altera piscaria salmonum unius cymbæ super sexta parte aquæ de Keillishockell in aquis salsibus et dulcibus.’

23d July 1624.—Retour—Duncan Bayne.—‘Dimidia parte terrarum de Torvirttan, et piscaria salmonum ejusdem tam in aquis salsibus quam dulcibus.’

16th July 1633.—Retour—Alex^r. Corbatt of Arkboll.—‘Cum portu nuncupato Camray et privilegio tenendi cymbas pro captione salmonum, halecum aliorumque piscium infra dictos portus et quamcunque aliam partem maris coram dictis terris de Arkboll.’

28th September 1669.—Retour—Colin Earl of Balcarras.—‘Piscationibus de Ness de Channonrie super aquis salsis.’

25th February 1696.—Retour—George Munro.—‘Villis et terris de litle et meikle Clynes—salmonum piscariis tam in aquis salsis quam dulcibus.’

SUTHERLAND.

22d July 1605.—Retour—John Earl of Sutherland.—‘Cum portubus et lie Heawin places omnium terrarum et insularum prescriptarum et omnibus piscariis tam in aquis salsis quam dulcibus.’

30th April 1616.—Retour—Wm. Sutherland, of Duffus.—‘Cum piscariis salmonum aquæ de Innerschine et lie Lyn una cum piscaria de Makell super aquam de Ockell et piscaria salmonum.’

salmonum et aliorum piscium in aquis dulcibus et salsis infra bondas et limites dictarum terrarum et piscariarum * * * terris de Cayane et Kilpedder in Strathulzie cum piscariis in aquis dulcibus et salsis tam salmonum quam aliorum piscium.

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WIGTON.

24th October 1633.—Retour—Thomas Hay, of Park.—Piscatione salmonum tam in aqua salsa quam in dulci in fluvio de Luce a capite usque ad finem ejusdem.

22d September 1688.—Retour—John Earl of Cassils.—Piscatione salmonum in aqua seu fluvio de Luce et piscaria in aqua salsa.

CROWN RIGHTS, SCOTLAND, SUBSEQUENT TO THE UNION.

RETURN of any RIGHTS belonging to the CROWN along the SEA SHORES of *Scotland*, which have been granted since the UNION; distinguishing the nature of such Rights, to whom granted, and for what Consideration.

Date of the Grant.	Nature of the Right.	To whom Granted.	Consideration for which granted.
1735. August 26	Right of all the oyster beds, or oyster scalps, on the north side of the Firth of Forth, from the west point of the lands of Cutlehill called Old Moore, onwards to the west side of the harbour of Burntisland, and extending to the middle of the Firth.	George, Earl of Mor-ton.	A penny Scots yearly, if asked.
1743. March 10 -	Right of salmon and other fishings in the Firth of Forth opposite to her lands of Grantown, &c.	Caroline, Countess of Dalkeith.	Six shillings and eight pence Scots yearly, if asked.
1754. Feb. 26 -	Right of oyster and muscle beds or scalps upon the south side of the Firth of Forth, from the west point or march of the Barony of Preston Grange, lying within the parish of Preston Grange and county of Haddington, onwards to the east end of the said barony.	William Grant, of Preston Grange, his Majesty's Advocate for Scotland.	A penny Scots yearly, if asked.
1758. Sept. 27 -	Right of salmon fishings in that part of the river Tay, adjacent to his lands, and barony of Monorgan, upon the north side of the river, such right to extend to the middle of the river.	Henry Crawford, of Monorgan.	Ditto.
1765. Nov. 29 -	Right of salmon fishings in the sea, adjacent to his lands of Berryhill and Sheriffseat, in the county of Aberdeen.	Rev. James Honyman, of Berryhill.	Ditto.
1765. Nov. 29 -	Right of salmon fishing in that part of the river of Northesk, running within the bounds and limits of the lands of Kirkside, as far west as the straight line drawn from the gateway of the house of Kirkside, through the wynd-path down to the sea.	Arthur Straiton, of Kirkside.	Ditto.
1766. Sept. 23 -	Right of salmon fishing in the sea, adjacent to his lands, in the lordship of Slains, in the county of Aberdeen, along the sea coast.	Earl of Errol - -	Ditto.
1768. June 3 -	Right of salmon fishing in the sea, adjacent to his lands of Inverugie or St. Fergus, in the county of Banff, along the sea coast.	James Ferguson, of Pitfour.	Ditto.
1769. July 7 -	Right of salmon fishing in the sea, adjacent to his lands of Buckie, Frenchney, and Nether Auchinreath, in the county of Banff, along the sea coast.	John Gordon, of Cluny	Ditto.

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(continued)

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Date of the Grant.	Nature of the Right.	To whom Granted.	Consideration for which granted.
1773. Feb. 25 -	Right of salmon fishing in the sea, adjacent to his lands, in the parish of Foveran and county of Aberdeen, along the sea coast.	Andrew Robertson, of Foveran.	A penny Scots yearly, if asked.
1775. Feb. 28 -	Right of salmon fishing in the sea, adjacent to his lands, in the parish of Belhelvie and county of Aberdeen, along the sea coast.	Robert Turner, of Menie.	Ditto.
1775. July 27 -	Right of salmon fishing in the river Don, adjacent to his lands, upon the north and south parts of the river, as his lands lie upon both banks of the river.	Alexander Leith, of Freefield.	Ditto.
1778. June 26 -	Right of salmon fishing in the sea, adjacent to his lands of Dunninald, in the parish of Craig and county of Forfar;	Archibald Scott, of Dunninald.	Ditto.
	and also, Right of salmon fishing in the sea and water of Southesk, adjacent to the lands of Ulysseshaven, lying within the said parish of Craig and county of Forfar.	The said Archibald Scott, in life-rent, and Mary Scott, of Ulysseshaven, in fee.	Ditto.
1781. June 21 -	Right of salmon fishing in the sea, adjacent to his lands of Tannachy, including the lands of Coir and Windsor, in the parish of Rathven, and county of Banff, along the sea coast.	George Stewart, of Tannachy.	Ditto.
1782. April 16 -	Right of salmon fishing upon the coast, at both sides of Lochcarron, lying within the county of Ross and parish of Lochcarron, adjacent to his lands of Lochcarron, and the lands of Attadale, belonging to Alexander Mathieson, upon the sea coast. <i>Note.</i> —It appears from the grant, that Mr. Mathieson consented that the right of salmon fishing along his lands of Attadale should be given to Mr. Mackenzie.	Thomas Mackenzie, of Applecross.	Ditto.
1789. April 28 -	Right of salmon fishing in the sea, adjacent to his lands of Kilcoy, Muiren Drumnamarg, Monloch Churchlands of Stroniady Auchmault, Auchnashien and Wester Kessack, in the county of Ross, upon the sea shore.	Charles Mackenzie, of Kilcoy.	Ditto.
1794. Sept. 17 -	Right of salmon fishing in the sea, adjacent to his lands, in the parishes of Old Machar and Belhelvie, and county of Aberdeen, along the sea coast.	Andrew Skene, of Dyce.	Ditto.
1795. June 30 -	Right of salmon fishery in the sea adjacent to his lands, in the parish of Ecclesgraig, and county of Kincardine, along the sea coast.	Charles Scott, of Criggie.	Ditto.
1804. Feb. 1 -	Right of salmon fishery in the sea adjacent to the lands, in which the treasurer for behoof of the city of Aberdeen, stands heritably infest and seised, in the county of Kincardine, lying along the sea coast.	The Treasurer of the City of Aberdeen, and his successors in office, for behoof of the provost and bailies, treasurer, council, and community of the city of Aberdeen.	Ditto.
1806. Aug. 23 -	Right of salmon fishery in the river Clyde, adjacent to his lands in the shire of Renfrew.	Duncan Darroch, of Gourrock.	Ditto.
1808. Feb. 9 -	Right of salmon and other fishings in the river Tay, adjacent to his lands in the shire of Perth.	Thomas Mylne, of Mylnafield.	Ditto.

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Date of the Grant.	Nature of the Right.	To whom Granted.	Consideration for which granted.
1819. Aug. 3 -	Right of salmon fishings in the water of Conon, and the cruives thereof, within the bounds specified, and contained in the original rights and in feftments of the same, and conform to use and wont.	The Honourable Mrs. Maria Hay Mackenzie, of Cromarty.	£. 1. 6 s. 8 d. Scots yearly.
1819. Aug. 3 -	Right of salmon fishery in the Moray Firth, adjacent to his own lands of Avoch, and Newtown, and Inch, and others lying in the parish of Avoch and sheriffdom of Ross.	Sir Alexander Mackenzie, of Avoch, Knight.	A penny Scots yearly, if asked.

Exchequer Chambers,
Edinburgh, 1 June 1838.

John Henderson,
Queen's and Lord Treasurer's Remembrancer.

EXCERPTS from MODERN CROWN-CHARTERS or SASINES thereon, of SALMON-FISHINGS in the Sea or in Salt Water.

I. CAPTAIN Barclay Allardyce, of Ury.—Precept from Chancery, in favour of Robert Barclay in 1761, and Crown-charter in favour of himself, 21st December 1821, 'Totas et integras terras de Ury cum terris dominicalibus earundem cum manereij loco salmonum piscationibus apud ostium aquarum seu fluviorum de Cowie et Conan tam in aquis dulcibus quam saltis inter littus de Stonehaven et littus de Cowie.'

II. Lord James Hay.—Charter of Donation in favour of his predecessor, the Rev. James Honeyman, dated 29th November 1765 :—'Jus piscationis salmonum in mare adjacen ad ejus terras de Berryhill et Sherrif-seat jacen in vicecomitatu de Aberdeen per vel secus maris littora earundem cum potestate dict Jacobo Honeyman et ejus prædict, utendi talibus retibus et cymbis ut illis videbitur aptis pro piscatione et cum potestate prohibendi omnes alios a piscando infra limites vel bondas earundem.'

III. Colonel Turner, of Menie, in Aberdeenshire.—Crown-charter, dated 23d February 1775, giving him warrant for sasine 'juris piscationis salmonum in mare adjacen ad ejus terras in parochia de Belhelvie, &c.'

IV. Mr. M'Donald of St. Martin's, holds fishings of the town of Montrose (who have a grant from the Crown) ex adverso of the links, lying to the north of Montrose. His charter of Confirmation from the town of Montrose bears as follows :—'Particularly with the salmon fishings upon the sands of Montrose, lying on the seashore between the mouth of the said river (Southesk) and the salmon fishings upon the sands of Charleton, also lying within the said parish of Montrose, and Sherrifdom of Forfar.'

V. Captain George Ferguson, of Pitfour.—Disposition by the Barons of Exchequer in favour of James Ferguson, of Pitfour, dated 8th August 1782, of the lands and barony of Inverugie, &c., with the salmon fishings and cruives upon the water of Ugie, and all and whole the salmon fishings of Inverugie, as well in salt as in fresh water.

VI. Robert Sinclair, of Freswick.—Crown-charter, 3d July, sealed 23d July 1789.—'Totas et integras terras et Baroniam de Dunbeath, &c., cum piscationibus in aquis salsis et dulcibus tam salmonum quam piscium alborum intra limites prædict terrarum vel ad easd pertinen et spectam cum cymbis piscatoriis portubus et navium stationibus,' &c.

VII. Thomas Kerr, of Miltoun.—Crown-charter, 28th August 1792.—'Totas et integras villam et terras de Grange de Monifieth, &c. cum omnibus salmonum piscariis earundem tam in mari quam in aqua dulci prout in originalibus et antiquis earundem titulis et infeofamentis definatæ sunt.'

VIII. Colonel Udny, of Udny.—Precept from Chancery in favour of his predecessor, William Udny, dated 19th April 1793, of the lands and barony of Newburgh, commonly called Knockhall, in Aberdeenshire, giving right to the port and haven of Newburgh, 'una cum piscatione super aqua de Ythan tam per mare quam per terram infra omnes bondas et limites integrarum dict terrarum et baroniæ cum pertinen.'

IX. Lieutenant Colonel Gordon, of Cluny.—Crown-charter of confirmation in favour of Charles Gordon, of the estate of Slains, dated 5th July, and registered 20th September 1805, with 'Totum et integrum jus salmonum piscationis in mare adjacen terris supra et postea disposit secus oras et per littora earundem.'

X. Captain Alexander Dingwall Fordyce.—Crown-charter of resignation in favour of John Dingwall, Esq. of Brucklay, dated 5th July, sealed 10th September 1814, of the lands

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lands and barony of Aberdour, in Aberdeenshire, 'et albis piscationes de Aberdour una cum piscatione salmonum aliisque piscationibus dictæ baroniæ de Aberdour tam in aqua dulci quam in salsa.'

XI. J. M. Grant, of Glenmorrison and Moy.—Crown-charter dated 5th, and registered 31st July 1822.—'Totam et integram illam partem terrarum et Baroniæ de Culbin, &c. cymbam super aquam de Findhorn cum libertatibus communitatibus et privilegiis ejusdem cum lie muscle scalp et salmonum piscatione et pertinen tam in insalsis quam in salsis aquis de Findhorn vulgo vocat lie stells de Culbin cum omnibus aliis piscationibus pertinen et spectan ad dic terras et Baroniam de Culbin tam in insalsis quam in salsis aquis.'

XII. Arthur Forbes, of Culloden—Sasine 1824.—'All and haill the lands of Alterlies, now called Meikle and Little Alterlies and Brecknish, with the fishings of salmond and white-fishing in the salt waters thereof, coble and net of the same, with their pertinents lying within the royalty of Spynie, parish of Petty, and sherriffdom of Inverness.'

XIII. Captain Macdonald, of Sandside.—Sasine, registered 2d March 1825.—'Piscationibus in aquis dulcibus et salsis privilegiis cymbarum piscariarum portibus stationibus,' &c.

XIV. Donald Horne, of Langwell.—Sasine, dated 26th and 27th October, registered at Wick 3d November 1831.—'All and Whole the lands and estate of Langwell, comprehending, &c. with the water and salmon-fishing of Berriedale, as well in fresh water as in the sea.'

XV. Duke of Sutherland, Crown-charter, dated 3d February, registered 7th April 1836:—'Totum et integrum comitatum de Sutherland et omnes et singulas terras dicti comitatus cum castro de Dunrobin ac cum annexis connexis dependen tenen tenan libereque tenen sevitiiis outsettis molendinis piscationibus tam in aquis salsis quam dulcibus,' &c.

XVI. William James Lumsden, Esq., of Balmedie, county of Aberdeen.—Charter of Donation, dated 13th April, and registered 3d May 1836:—'Jus salmonum piscationum in mari secus littus adjacen undecimam pertionem (lie lot) terrarum de Belhelvie.'

XVII. James Farquhar, of Hallgreen and Berry.—Crown-charter, dated 21st December 1840:—'Ac etiam totam et integram piscationem salmonum et alias piscationes super littore marino lie sea-shore subtas prædict. villam de Inverbervie inter ostea aquæ de Inverbervie et locum de Hallgreen ac ostium torrentis ejusd. cum partibus pendiculis et pertinen earund.'

XVIII. The trustees of the late Mr. Anderson, or Charleston and Kinnebar, county of Forfar.—Crown-charter, dated 21st December 1840, registered 19th March 1841, 'Totas et integras terras et Baroniam de Kinnebar et cum salmonum piscariis aliisque piscariis super aqua de Northesk, &c., &c. ;' 'ac etiam cum salmonum piscariis aliisque piscariis in littore maris inter dictam aquam de Northesk et aquam de Southesk.'

XIX. The Earl of Errol.—Precept from Chancery, dated 12th March 1847, for infefting him in the lordship of Slains, 'ac etiam toto et integro juri salmonum piscationum in mare adjacen dict terris in Dominio de Slains et super littora earund.'

XX. Alexander Dingwall Fordyce, of Culsh and Brucklay.—Crown-charter in favour of John Dingwall, then of Bruckly, dated 4th February, sealed 25th April 1848:—'Tam alborum quam salmonum piscium super arenas nuncupat St. Cyrus Sands jacen intra Priests road fute ab orientali et torrentum de Machrie ex occidentali partibus.'

XXI. The Earl of Fife, Crown-charter, 1833:—'Totas et integras villam baroniam et terras de Down nunc vocat Macduff comprehenden villam et terras de Barnhill Deyhill Old Alehouse Myrehouse et Bonds Gellyhill Gellymill et Molendinum de Gellymill cum totis partibus pendiculis et pertinen et salmonum piscationibus in mare ad eadem spectan una cum alba piscatione cymbis littore portu anchoragia et lie pilotage dict Burgi de Macduff,' &c.

129. *Chairman.*] Were any further leases granted?

The granting of leases in 1846 up to 1848, was put a stop to by the resistance which was made by Mr. Gammell and other persons to the claims of the Crown, and in 1849 an action was raised, as your Lordships have heard, against Mr. Gammell, and another action was raised against Mr. Sinclair, of Forss, with regard to some fishings in the Bay of Thurso; a third action was raised against Sir Peter Thriepland, in regard to some other fishings in the Bay of Thurso; the two latter were stayed until a decision in Gammell's case was arrived at. I should mention, with regard to one point upon which I think some questions have been put, that the defences raised by Mr. Gammell to the case of the Crown, were twofold. He said, first of all, that as the owner of the barony, he was entitled to fishings in the sea; and, secondly, and inconsistently as might be thought with his first plea, that the Crown had no right to fishings in the sea at all; but they were matters of public right which anybody could exercise

exercise. The first defence as to the rights appurtenant to a barony, was reserved until after the main question as to the extent of the rights of the Crown in the sea had been disposed of by the Court; and I may add that after the decision in the House of Lords, affirming the decision of the Court of Session, by which the right of the Crown to the fishings in the sea was established, the defender did not think that the other question was arguable; at all events, he submitted to a judgment for the Crown upon the question, as to the right appurtenant to the barony. That question, therefore, by submission, was determined in favour of the Crown, but there has been no legal decision upon it; the point was raised.

130. But not argued or decided?

Not argued; judgment went for the Crown on that issue, without any argument.

131. Earl *Cawdor*.] I see here leases dated 1806 and 1819, for which the rent is "a penny scots yearly, if asked"?

Those leases were made by the Barons of the Exchequer; I do not think any lease has been granted for a penny scots or any such nominal sum since the management of this right was transferred from the Barons of the Exchequer to the Commissioners of Woods.

132. Duke of *Richmond*.] I suppose these are grants?

Yes.

133. Have you a return of any rights belonging to the Crown along the sea shore of Scotland, which have been granted since?

Those, I believe, are all the grants in fee which could be proved in Gammell's case.

134. *Chairman*.] Have you any statement to make with regard to a circular that was sent out with relation to the salmon fishings?

I think it may be convenient that I should hand in a copy of that circular, because it will show exactly what the Commissioners have done.

(The following Document is handed in.)

Office of Woods, &c., Whitehall Place,
London, 1859.

Sir,

By the judgment of the House of Lords in the case of the Lord Advocate against Gammell, dated 28th March last (of which judgment I enclose a copy for your information), it was established that the salmon fishings around the sea coast of Scotland belong exclusively to the Crown, and form part of its hereditary revenues, so far as such fishings have not been expressly granted to subjects or vassals by charters, or otherwise; and I have, therefore, to intimate to you that unless you possess a valid title, under express grant from the Crown, to the salmon fishings *ex adverso* of your lands and estate of

in the county of _____, such fishings belong to the Crown, and are subject to my administration as the Commissioner in charge of the Land Revenue of the Crown in Scotland. If you conceive you possess such a right, I have to request that you will, within a fortnight from this date, transmit to the solicitor for this department in Scotland, Mr. Donald Horne, W. S., 96, George-street, Edinburgh, the titles under which such right is maintained, that the same may be investigated. But, if you claim no such right, or if, on investigation, it should be ascertained that you possess none, then it will be my duty to require payment of a moderate rent for the unexpired period of the current fishing season, in respect of the salmon fishings in question; and with a view to the ascertainment of such rent, I have to request you will transmit to the solicitor a signed statement of the profits derived from the fishings for the last three years, and the lease or leases (or copies of them), if any, under which the fishings are at present held by tenants. Failing your acquiescence in this proposal, the rights of the Crown are reserved entire, in order to such proceedings being adopted as may be judged necessary for interdicting your further exercise of the fishings, and for vindicating the Crown's patrimonial interest therein, not only in regard to the fishings themselves, but in respect to the profits hitherto derived therefrom.

In the event, however, of your entering upon an amicable arrangement for the current season, I shall be ready not only to relinquish all claims by the Crown to the profits derived from the fishings up to the date of this circular, but also to treat with you for a lease of the fishings for the seasons 1860 and 1861, subject to this condition—that if fishing by bag or stake, nets, or other fixed engines, or machinery, in the sea, should be prohibited by Parliament during the above period, you will at once desist from that mode of fishing, without any claim for compensation or otherwise. After the expiration of the lease which I now propose to treat for, the Crown will hold itself entirely unfettered as to the manner in which the salmon fisheries in question shall be dealt with.

I request your immediate attention to this subject,

And am, sir,

Your obedient servant,

H. Watson, Esq.

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135. Lord Stanley of Alderley.] Did you receive answers to that circular ?

A great many answers were received to that circular, and the result has been, that in addition to the five leases which have been already granted, 24 persons agreed to take new leases, 180 cases are still under investigation, there are no answers from 130, and in about 110 cases it is considered, as far as we can ascertain, that good titles can be made adversely to the Crown.

136. *Chairman.*] What evidence could be obtained on the part of those persons who established their rights ; were you satisfied with the representations they made, or did you take any other steps yourself ?

The investigation took place in Scotland by the legal advisers of the Crown there, and I believe that all proper steps were taken not merely to be satisfied with the representations made, but thoroughly to investigate the matter so far as the thing can be now investigated ; I personally had little to do with the investigation.

137. Do you know whether the parties claiming those rights are required to produce their charter, or the documents upon which they were grounded ?

I believe it was suggested they might, if they pleased, do so ; of course the Commissioners of Woods had no power themselves to compel them to produce their titles.

138. In the case of persons who were indisposed to do that, had you no means of enforcing their production ?

I am not competent to answer what means the Court of Session have of enforcing the production of adverse titles.

139. Earl Cawdor.] You might proceed against those parties ?

Yes, we might proceed against those parties. I am not aware what the rules of the Court of Session are, as to the production of documents of title. As to the rents reserved under those leases, I should say that the rents under the 29 leases are about 660 *l.* a year in the aggregate, they are believed to represent fishings worth something over double that ; the value of the fisheries we cannot ascertain exactly.

140. Lord Stanley of Alderley.] Could you give the Committee a list of the cases in which the rights have been established ; a list of the cases in which new leases were granted, a list of the cases which are still under investigation, and a list also of those from whom no answer has been received ?

We could give a list of the cases in which no answer has been received, and I think all the other particulars which your Lordship has mentioned, except those in which the right has been established ; because it may happen that in the investigation of the cases in which no decision has been arrived at, the law officers of the Crown may find further evidence which may tend to show, that in some of the cases in which at present it is supposed the claimant has a good title adversely to the Crown, their previous opinion was erroneous, and therefore it is impossible I think, now to supply that list.

141. *Chairman.*] It would be rather a dangerous admission on your part, would it not ?

Certainly I do not think it is information which could be given at present ; the subject has not been sufficiently investigated.

142. Lord Stanley of Alderley.] As I understood Mr. Howard's evidence, he stated that there were 115, or whatever the number may be, of cases, of parties who had established rights, and who the Commissioners of Woods had recognised ; what objection can there be to the Commissioners giving in a list to the Committee of the cases so decided ?

The difficulty is, that there has been no decision ; if there had been a legal decision, in which the rights of the claimants had been established in 110 cases, there would not be the slightest objection to that list being handed in ; but at present, in many cases, it would be only the opinion of an individual upon the construction of a document or upon evidence, and it may turn out in the course of the further investigations which are in progress, that that opinion was erroneous, and therefore some modification, or reduction, or extension of that number, ought to take place.

143. Would there be any difficulty on the part of the Commissioners, in giving a list of the gross number of persons by whom those circulars were answered ?

None.

144. Would

144. Would there be any difficulty in giving the number of leases granted?
None.

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145. Would there be any difficulty in giving a return of the number from whom no answer has been received?

No.

146. Would there be any difficulty in giving a return of the number of cases still under investigation?

No, none.

147. Be good enough to give that list to the Committee?

Yes; I was going to explain that it will be impossible to arrive at any result by the process of exhaustion, because in some cases the circular will apply to several fishings held by one proprietor. Again, the admission may go to a part of the claim of one proprietor, and no answer may have been received in respect of another part, or another part may be still under investigation; therefore, the figures would not make up the total of letters sent out.

148. Earl Cawdor.] It appears from this paper which has been put in by you, that from the Union up to the time when the management of the salmon fishings in Scotland came into the hands of the Woods and Forests, that the practice was to grant to the proprietor *ex adverso* the right of salmon fishing upon the shores opposite his property, for a very small consideration; have the Woods and Forests continued that practice since?

I believe not.

149. No grant has been made?

No grant has been made in fee, that I am aware of.

150. The Woods and Forests have, since the matter came into their management, demanded an annual rent instead?

The Commissioners of Woods and Forests are regulated in the management of Crown property by Acts of Parliament which impose upon them the duty of seeing that the fair annual value is paid for the property under their charge before they grant leases of it, having regard to any rights which the grantee or any other person may have, which would render it difficult to dispose of that property to third persons.

151. Lord Lovat.] Are not the Woods and Forests prevented by that Act of Parliament, from the alienation of any part of the Crown property?

They have a general power of sale of Crown property, except as regards the Royal forests and parks.

152. Not to give grants?

They have the power of sale for the value for the thing; they cannot grant it free of all consideration.

153. Chairman.] I presume the figures you have given are only an approximation to the accurate numbers?

Those are approximate figures. Then I should say, as far as we can judge, more than one half of the salmon fishings in Scotland, on the sea coast or in the rivers and estuaries, are held adversely to the Crown, either rightfully or wrongfully.

154. Earl Cawdor.] You mean without charter?

Probably half are held rightfully against the Crown, either by charter or by prescription, founded on charter *cum piscationibus* in general terms; and I mention that because it is extremely questionable how far any regulations which the Commissioners of Woods might think it right to make in leases which they grant of their fishings would be effectual to secure the object which Mr. Howard has in view, and which should be the object of everybody else who considers the subject, namely, the improvement of the salmon fishings.

155. Duke of Richmond.] Are the rights admitted to be valid in all those cases?

I am not aware whether any of those charters given in evidence in Gammell's case were afterwards annulled or resumed; they were only given as evidence of the exercise of the right of the Crown in the sea. I should mention before we leave the question of leases that the existence of the right of the Crown was

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investigated in 1848. The Commissioners of Woods and Forests took the advice of the Crown counsel, the Lord Advocate, the Solicitor General, and the junior counsel for the Crown, as to the course which should be pursued with regard to granting leases, and the law officers of the Crown at that day did not entertain those objections which have been since felt with regard either to the restrictions which should be imposed upon the Crown grantees, or as to the mode in which the rights of the Crown should be exercised; because I find from that opinion that they say, "We think the memorialists should communicate to the sea-bounded proprietors, the terms upon which the Crown is disposed to grant leases of the salmon fishing in the sea, *ex adverso* of their lands. It appears to us, that in all cases such leases should be offered to the proprietors of the adjoining lands upon fair and reasonable terms, before negotiating with strangers." That was the opinion of the law officers of the Crown in 1848. It was founded upon that opinion, that the Commissioners of Woods did proceed then as they did afterwards, upon the decision in Gammell's case, to offer leases to *ex adverso* proprietors. It is quite true that at that time, 12 years ago, the subject of bag and stake nets had not been so prominently before the public as it of late years has been. I mention it to show, that in the opinion of the Crown counsel at that day, the course which the Commissioners thought right to pursue was a proper course to be followed.

156. Lord Stanley of Alderley.] Have you granted any leases to parties who are not owners of adjacent property?

I am not aware of any such case.

157. Duke of Richmond.] Have you a list of all the charters that have been granted of salmon fishings in Scotland?

No; I have not.

158. Chairman.] Do you know whether there is any register of such grants?

There is a register of all Crown charters in Scotland, but it is extremely difficult to pick out from that register the charters which contain express grants of salmon fishings. It was with considerable difficulty that even this list, which I have handed in to the Committee, was obtained. I am afraid that is very imperfect; still there is great difficulty in picking out the charters which contain grants generally throughout the country.

159. You are conversant with the course of legislation on this subject; are there any particular Acts or Reports of Committees, to which you would desire to call the attention of the Committee?

There is a Report of a Committee of the House of Commons in 1825, and another Report of a Committee of the House of Commons in 1836. There are also the Reports of the Select Committees on the Tweed Fisheries Bills of 1857 and 1859. The evidence on the Bill of 1857, I think, has been already communicated to your Lordships by the House of Commons, and in the present Session there were two local Bills brought in, one relating to the Ness and Beauly, and the other relating to the Thurso rivers; the Thurso Bill was more moderate in its provisions than the Ness and Beauly Bill. The Thurso Bill proposed not to abolish bag and stake nets altogether, but to regulate them. The Ness and Beauly Bill proposed to abolish the bag and stake nets altogether, but at the time of its introduction contained a clause which reserved to Lord Lovat the right to a cruive in the river. The result of that was that a fixed engine in the river was allowed, while fixed engines in the sea were proposed to be prohibited. I believe it was felt that that was a provision which was inconsistent with the others, and when the Bill came before the Committee in the House of Commons, Lord Lovat and the promoters of the Bill agreed to strike out the proviso by which the cruive was reserved. And with regard to the distinction which has been sometimes sought to be drawn between cruives and other fixed engines, on the ground that one is held by a grant from the Crown, and the other is not expressly recognised in any grant from the Crown, I think it will hardly be found on investigation to be a sound one, because it seems to me, if it be the fact (as stated by the Lord Advocate) that a right to salmon fishing, under a grant which does not expressly prohibit the use of fixed engines of any sort is entitled to the same respect (conferring the right on the grantee to use bag and stake nets) as a grant which expressly confers the

the right to the cruives, that it is a question of legal right in both cases, and one legal right is entitled to the same respect as another.

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160. *Chairman.*] Were those Bills brought in with the sanction of the Commissioners of Woods?

The Commissioners of Woods refrained from taking any part, either in sanctioning or opposing, as they wished the matter to be investigated, and they hoped certainly that they might be the means of obtaining such information as would either justify a general inquiry, such as that which is now taking place, or satisfy the public that there was no necessity for it.

161. *Lord Stanley of Alderley.*] Are you aware whether there are any cases in which river proprietors who have established their right by a grant from the Crown, have recently attempted to erect new cruives in the rivers?

I am not aware of any such case.

162. Would not there be a distinction then between the case of new stoke nets and fixed engines in the sea being erected, and the continuance of cruives which have existed for a long time, and which would therefore claim a right of prescription to be retained?

I, myself, am unable to draw any distinction between two legal rights. A person, by the Law of Scotland, has not a right to use a cruive in a river, unless he has an express right in his charter from the Crown to erect a cruive, while, on the other hand, according to the evidence of the Lord Advocate, the grantee of salmon fishing in the sea, if not restricted as to the mode of the exercise of his right, is entitled to erect bag and stake nets, I do not, myself, see that the grantee in the one case having an express right to erect a cruive, is in a different position from the grantee in the other case, having an implied right to erect bag or stake nets.

163. Am I to understand you to say that no proprietor of fishing in a river has a right to erect a new cruive without the express permission of the Crown.

That is my impression as to the law of Scotland.

164. *Earl Cawdor.*] He cannot do it without the express permission of the Crown, but if he has a charter giving him the power to erect cruives, could not he erect them under that charter in a new place?

That is a question I am really not able to answer.

165. *Lord Stanley of Alderley.*] If then the right of fishing in the sea is precisely parallel with the right of fishing in rivers, and in rivers the grantee from the Crown has no right to erect a new fixed engine in the shape of a cruive, why do you infer that he has a right to erect a fixed engine in the sea, such as a bag net or a stake net, without the express permission of the Crown?

My answer to that question is that as between two grantees the Court of Session has so decided, and the decision has been affirmed on appeal by the House of Lords. With reference to your Lordship's question, permit me to read a short extract from a judgment of the House of Lords on this very point. It is the case of *Lord Kintore v. Forbes*. "Another point has been insisted upon in the papers, and at the bar; but it does not appear to me to merit much attention. It is said that the proprietors of these fisheries on the sea coast have no right by the terms of their grant to fish in this manner; that they are entitled only to fish with what is called a net and coble, and that having taken upon themselves to fish in a different mode, the proprietors of the fisheries in the River Don have a right to complain of it, and on that ground to sustain the suit. My Lords, I apprehend that is quite a mistake; these persons became proprietors of fisheries on the coast originally by grant from the Crown, and if these grants are so limited, that in point of law (upon which I do not wish at present to pronounce an opinion) they are not entitled to fish in the manner described, namely, by the use of stake nets, that is a question between them and the Crown; the Crown may have a right to complain, that the exercise of the right conveyed by the Crown has, in that instance, been exceeded and possibly under such circumstances the Crown might, by its public officer, institute some proceeding against them, upon which, however, I wish carefully to abstain from expressing any opinion, but the proprietors of the fisheries on the Don have nothing to do with that. The question with respect to the proprietors of

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the fisheries on the Don, is, whether they have a right by the existing law, to complain that persons who possess property on the sea coast, and have a right of fishing on the sea coast as extensive as the Crown can grant, are entitled to fish, by means of stake nets, and whether they can make out that the laws of Scotland prohibit, under such circumstances, where the sea ebbs and flows, the use of machinery of that description? Now, I apprehend that looking to these Acts of Parliament, they do not apply to fisheries on the sea coast, and that the proprietors of fisheries on the Don have no right to maintain this suit."

166. In drawing a distinction between the rights of a grantee to erect a new fixed engine in a river, and a new fixed engine on the sea shore, how do you define the limits of the river?

That is a most difficult question, and one which I think it is impossible to settle without the aid of a commission, and with your permission, in order to show the extreme difficulty of this question, I will hand in a memorandum which Mr. Farrer, one of the assistant secretaries of the Board of Trade, has been good enough to give me, which he prepared for another purpose. He was requested to state what definition could be given to the mouth of a river, and he has considered the question under these several heads: 1st. Jurisdiction of Harbour or Pilotage authorities. 2d. Jurisdiction of Admiralty Court. 3d. Construction of Fishery Acts relating to Rivers. 4th. International Law relating to Boundaries of National Territory; and 5th. Fishing Treaties. On all these subjects I think you will find this memorandum exhausts the question, and the result, as Mr. Farrer says at the end of his memorandum, is, that there is nothing to serve as a guide. I think that is really the state of the case, and it is impossible to say what is the boundary.

167. *Chairman.*] Each case must be decided according to its own circumstances, by a commission for that purpose?

Yes.

(The following Document is delivered in.)

MEMORANDUM.

THE only subjects on which I can find anything which has the remotest affinity with the question, "What are the limits of a river?" are the following:

1. Jurisdiction of harbour or pilotage authorities.
2. Jurisdiction of Admiralty Court.
3. Construction of Fishery Acts relating to rivers.
4. International law relating to boundaries of national territory.
5. Fishing treaties.

1. The jurisdiction of harbour and pilotage authorities is, in every case that I am aware of, limited and defined by some special charter, or in more recent times by Act of Parliament, having reference to the particular circumstances of the case, and to the purpose for which jurisdiction is conferred, and not to the physical termination of the estuary;—*e. g.*,

The district under the London Trinity House, in which pilotage is compulsory, extends from Orfordness on the north to Dungeness on the south, including large portions of sea which cannot possibly be considered as within the Thames. Beyond this the Trinity House exercise jurisdiction, under Act of Parliament, all down the Channel, &c.

The Pilot Commissioners in the Mersey exercise jurisdiction, under a special Act, as far as the Ormshead and Holyhead, far outside both the Mersey and the Dee.

The corporation who manage the pilots in the Bristol Channel exercise jurisdiction under a special Act beyond Lundy Island.

The Trinity House of Hull and the Pilotage Commissioners of the Humber exercise a joint jurisdiction, under a special Act, as far as the Spurn and Grimsby. Beyond this the Trinity House of Hull exercise an undivided jurisdiction over the coast pilots, under, I believe, an old charter.

The Pilot Board of the port of Glasgow have, under a special Act, jurisdiction as far as the Cumbræes, between the south point of Bute and the mainland.

As respects lights the principle is, that the three general Lighthouse Boards have the sea lights, and that harbour authorities maintain their own harbour lights. Thus the Trinity House of London maintain the Spurn Light, at the mouth of the Humber, which is useful for ships passing along the coast, and the Hull Trinity House maintain a light in the entrance which is useful for the navigation of the Humber.

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But there are one or two curious anomalies arising out of local circumstances. The Liverpool Dock Trust maintain a light at Cape Lynas in Anglesey, though lights nearer the Mersey are maintained by the Trinity House. The Northern Light Commissioners maintain a light at Tuck Keith in the Firth of Forth, whilst a local harbour authority at Dundee maintains lights outside the mouth of the Tay.

The Board of Trade have frequent applications for lights, especially, from Ireland, to be paid for out of the general funds, which they are obliged to refuse, on the ground that they are harbour lights and not sea lights.

But, in dealing with these cases, we are obliged to be guided by the special circumstances of each case, and cannot lay down any rule defining what is and what is not a harbour.

So, with respect to other matters of harbour jurisdiction, mooring, getting and depositing ballast, dredging, police, &c., almost every river and harbour has its own special law; its own governing body, and its own rules, and the limits are defined by that law, with reference to the special facts of the case and the special purpose in view. It would be impossible to extract any principle showing what ought generally to be considered the limits of a harbour or an estuary.

2. *As to the Jurisdiction of the Admiralty Court.*—The Admiralty Court had originally jurisdiction on the high seas, but not within the realm; much jealousy existed on the part of common lawyers on this semi-Ecclesiastical Court, which has resulted in many conflicts. There are, consequently, various statutes and cases which define, for this special purpose, what are the high seas and what are not. Thus it has been said, on the one side, that the Admiralty Court has jurisdiction below the lowest bridge, whilst, on the other hand, it seems to have been settled that ports and havens are within the body of a county and not within Admiralty jurisdiction; that a ship in the Solent, a ship at Hull, and a ship at the Lower Hope in the Thames, were not within Admiralty jurisdiction, and that the county coroner and not the Admiralty had jurisdiction in case of death on water where the opposite shore could be seen.—See Viner's Abridgment Title, Court of Admiralty (D.); Coke's Institute, 4th part, p. 140; "The Public Opinion," 2 Haggard's Admiralty Reports, p. 483; "The Eliza Jane," 3 Haggard's Admiralty Reports, p. 335; but these cases don't help us, for they are only addressed to the limitation of the Admiralty jurisdictions landwards, and there can be no doubt that the Crown of England used formerly to claim (probably as a droit of Admiralty) rights of territorial jurisdiction and even of ownership far beyond these limits, and even over a great part of the open seas surrounding Great Britain.

3. *Construction of Fishery Acts.*—There is a case in 6 Clark & Finelly, 628 (*Horne v. Mackenzie*), in which it was decided by the House of Lords that the question whether stake nets for salmon were within the prohibitions of the Scotch Salmon Fishery Acts, forbidding such nets in rivers, was not to be decided by the question whether salt or fresh water was prevalent at the place, several cases are there referred to which I have not been able to get; but it seems of little consequence, as the questions raised by them have reference to the special meaning of Acts which had for their object to keep a free passage for salmon up rivers; and the decision of these questions would probably depend upon the further question whether the net were placed in such a position as to interrupt the course of the fish, and not on the more general question, what is a river? In *Dagleish v. Duke of Atholl*, 5 Dow., 282, 5, Lord Eldon intimated his opinion that the prohibition to fish with stake nets in rivers extended in the case of the Tay to the bar of the river, which is a little outside the projecting headlands forming the mouth.

4. A more promising field for inquiry appeared to be opened by decisions on the question, "What waters are for international purposes to be deemed exclusive national property, and where does the *mare apertum* commence?" I can, however, find next to nothing on this subject. There is the less to be got out of our old law books as they uphold the now untenable doctrine of the "*mare clausum*," or the right of England to the narrow seas, which would, of course, include all estuaries in the United Kingdom.

The general rule is, that the national jurisdiction extends a cannon shot, say three miles from the coast, and also includes ports, bays, and mouths of rivers. See *Wheaton's International Law*, VII., p. 215. It seems further that some estuaries and seas, e. g. the Irish Sea and the Bristol Channel, have always been considered as peculiarly appropriated to England, and that the United States lawyers are likely to make similar claims on the coasts of the United States; see *Phillimore's Commentaries on International Law*, vol. 1, p. 212, and *Kent's Commentaries*, vol. 1, pages 29, 30. But no definition is given of what a bay, or a mouth of a river is. In the "*Anna*," 5 c., Robinson, 373, Sir W. Scott decided that uninhabited mud inlets off the mouth of the Mississippi were part of the United States territory, and in the same case an American case is cited in which the American courts held that the United States territorial jurisdiction does not extend to shoals lying off the coasts; but these cases give nothing in the shape of a general definition of the limits of the territorial jurisdiction of a nation. In some of the books will be found expressions serving to show that the limit is to be found by drawing a line from headland to headland, but this is utterly vague.

Between what headlands is the line to be drawn; for instance, in the Bristol Channel, is the line to be drawn from the Land's End to St. David's Head; or from Hartland to Pembroke; or between any headlands nearer to Bristol? To draw a line to the furthest headland to which a straight line can be drawn would, in many cases, include an immense tract of open sea; to draw it to the nearest point would exclude the greater part of most bays.

H. Watson, Esq.

15th May 1860.

5. *Fishery or other Treaties.*—I can only find one which in the least bears on the point, viz., our treaty with France in 1849. By that treaty, exclusive rights of fishery are reserved to English and French fishermen within three miles of their respective coasts, and where there are bays or estuaries less than 10 miles in width, within three miles of a line joining the two headlands. This gives a definite and intelligible limit; but it is one which is fixed arbitrarily, and which gives no principle to apply to another case. And there is further the distinction that in the French treaty bays and mouths of rivers are treated in the same manner, whilst in another treaty the fishing in bays and creeks is given to the United States' fishermen, whilst in the mouths of rivers it is reserved to British fishermen. I am afraid that the result of all this is simply to leave things where they were, and I should think, from the nature of the case, that it would be impossible to lay down any fixed rule. Some rivers, like the Mississippi and the Nile, make deltas and run out into the sea. In this case the extreme land would give a natural limit; some, like the Tyne, the Wear, and the Tees, run straight into the sea without any delta, and without any estuary. In these cases the bar at the mouths would give a natural limit. Most, however, from the formation of the land, run into an estuary or bay, more or less defined; whereas, in the case of the Humber, it is well defined and narrow; there is little difficulty in maintaining that the whole estuary forms the mouth of the river. But where, as in the case of the Severn or the St. Lawrence, the estuary gradually widens into a sea, it must be a matter of extreme difficulty to get anything but an arbitrary limit; and where neither law nor usage, nor agreement, has fixed this limit, there is really nothing to serve as a guide.

It seems to me clear that neither the ebb and flow of the tide, nor the division between salt and fresh water, nor any other circumstance belonging to all rivers, can possibly be held to be a guide in these cases.

(signed) T. H. Farrer.

168. Earl Cawdor.] Are you aware whether, in the Irish case, the stake nets were not legalised in the portion of the estuary, where the channel at low water spring tides was three-quarters of a mile wide?

I think there are provisions in the Irish Act to that effect; and I think also the Irish Commissioners have power to remove or alter the bag and stake nets, under certain restrictions as to compensation and otherwise.

169. Was not there also a provision that they should not be erected within a mile of the mouth of the river, seawards and inwards?

When the mouth of the river was less than a certain width.

170. Lord Stanley of Alderley.] In drawing a distinction between the right to erect a fixed engine in the sea and in a river, would you be disposed to consider that right existed on the sea shore, provided that some special or local Act had defined the limits of the river to be within five miles of a particular point at its mouth?

I think you will always find the definition in the local Acts confined to the purposes of that particular measure, and it would not be an Act *in pari materia* with the salmon fishings Acts for the whole of Scotland.

171. Not as to the whole of Scotland; but would you be prepared to accept it with regard to that particular river, so far as to say that a grantee from the Crown would have no more right to erect a bag net or a fixed engine upon that portion of the sea which was included in the river than he would in the upper part of the river, where, according to the evidence you have given, he could not erect new cruives without the permission of the Crown?

Any permission by the officers of the Crown would not affect the legal rights of the existing grantees from the Crown, who I fancy, in many cases, have charters at the mouths of the rivers, and they being entitled to insist that the definition in the local Act of what the mouth of the river should be, is not to be read in conjunction with the fishing statutes, are therefore entitled to have the verdict of a jury as to whether, under these statutes, that mouth of the river is as defined by the local Act or not; I should mention that in one case, the case of *Mackenzie v. Horne*, the Lord Chancellor in the House of Lords expressed an opinion (it was not a judgment) that the point to which the restrictions in the Scotch statutes applied was the point where the water of the sea met the water of the river at low tide; he said, that was a point which might be ascertained with much precision. I think it can hardly have been present to his Lordship's mind that at low water spring tides, the point may be a very considerable distance away from low water at neap tides, and every day there are different points where the water of the sea falls into the river; that cannot be accepted as a satisfactory definition. I have mentioned the nature of

of the Thurso Bill, and the Ness and Beaully Bill, and the alteration which was made in the Committee of the House of Commons, so far as regarded the cruive in the river; but after the Committee had expressed some opinion as to the impropriety of retaining the right to bag and stake nets, the Thurso Bill was withdrawn altogether with a view to a similar Bill to the Ness and Beaully Bill being introduced next Session. The Ness and Beaully Bill is now pending in this House; that Bill makes a further alteration with regard to the close time, which by the Home Drummond Act is from the 14th September to the 1st February; by the Ness and Beaully Bill, it is proposed to be altered so as to be from the 12th of August until the 1st of January. With reference to a question which was asked before as to the close time, before the Home Drummond Act was passed, I believe it was from the 26th of August until the 11th December.

H. Watson, Esq.

15th May 1860.

172. Have not different periods for close time been admitted for different rivers?

Only the Tay and Annan.

173. *Chairman.*] Is not there abundant evidence to show that the present close time begins too late?

I have read the greater part of the evidence that was given, both on the Tweed Fishery Bill, and on the Ness and Beaully Fishery Bill, and the result was, that I arrived at the conclusion that the present close time was much too late. I think, in the latter rivers, it was shown that the spawning fish were seen as early as the last week in July, and the sort of regulation which occurred to me that I might with propriety submit to the Committee, would be, that there should be a certain fixed close time in any measure which might be brought in, based on the report of your Lordships, say from the 1st August until the 1st January, and that any tribunal, either a commission, or a Fishery Board, should be empowered to extend that time for a period not exceeding 21 days, provided if they made it 21 days later in August, they should make the opening 21 days later in January, so that there should always be five months of close time.

174. -Is it not more important that the close time should begin earlier than end later?

There is very little doubt that the January fishing is not so destructive as that at the end of August.

175. Lord *Polwarth.*] Are you aware whether spawning fish are taken in the months of January and February, and even as late as the month of March?

I have no knowledge upon the subject, except what I have gathered from the evidence; and I should prefer your Lordship asking the question of the witnesses who will follow me

176. You have no personal knowledge with respect to the condition of the fish taken at those times?

None; my knowledge on the question of close time is derived almost entirely from perusing the evidence which has been given on these Bills.

177. Have you any knowledge as to whether there are different periods required in different rivers from the fact that the fish spawn early or late?

I have no personal knowledge, but evidence was given to that effect. I may mention that it has been suggested, that it would be extremely desirable, with a view to the protection of the fish during the spawning season, that the period for rod-fishing should be considerably enlarged, and one suggestion made was, that it should be legalised throughout the whole year. It is said, that the destruction of fish in the spawning beds is very great, and that the presence on the banks of the river of gentlemen and legitimate anglers, would prevent the presence of poachers, and the destruction of the fish which would otherwise take place. At all events, it is suggested that rod-fishing should be legalised for three months after the closing of the net fishing. With regard to the Herring Fishery Board I should mention, that as constituted under the Acts of Parliament, the principal of which are the 48th of Geo. 3, chap. 110, and the 10th and 11th of Victoria, chap. 91, the Fishery Board consists of 13 gentlemen, who are landed proprietors in Scotland, who are appointed by letters patent by the Queen; and the Lord Advocate and the

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Solicitor

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Solicitor General for Scotland are *ex officio* members of the Board. These Commissioners are not paid as the Commissioners are in Ireland, and of course are not able to give their regular daily attendance, as I presume they would, if it was their duty.

178. Earl Cawdor.] What jurisdiction would these Commissioners have in the matter of salmon fishing?

They have none at present.

179. Chairman.] You heard the evidence of the Lord Advocate?
I did.

180. Do you concur in opinion with him as to the amendment which the law now requires?

With reference to the suggestion of the Lord Advocate, as to the exercise of the Crown's right, I would beg to make this observation, that the present inquiry is for the purpose of ascertaining whether it is just and expedient, having regard to the rights of the Crown and individuals, that the existing mode of fishing by bag and stake nets should be either done away with altogether, or should be regulated; and I cannot doubt that, founded on the report which your Lordships will make, such a measure will be passed by Parliament, as will place that question upon a satisfactory footing; and I should hope that when that has been done, the Commissioners of Woods, as representing the Crown, will be enabled to make grants of leases without any restrictions whatever, because the question will be altogether settled and disposed of by the Act of Parliament founded upon your report; therefore, I should hope that it would not be necessary to enter upon that question. To say that bag and stake nets should be prohibited altogether in Crown leases would be deciding the very question which the Committee are going to investigate, namely, whether they should be done away with at all, or whether they should be regulated or abolished in certain localities. That is the point which the Committee has to investigate, and when that has been decided, and an Act of Parliament passed, founded upon the report, I should hope that there would be no necessity to make any special provision in the leases. I may just add, that the Commissioners of Woods are bound by their duty to the Crown and to the public not to give away the Crown property. It is their duty to see that a fair revenue is obtained from it. They might, no doubt, have derived a larger revenue from the fishings already, if it had been intended to view them simply as a source of revenue; but with the express object of preventing that being done, the course taken has been to grant leases since the decision in Gammell's case only for a term of three years, subject to express notice that the grantees should take subject to any alterations that Parliament should make in the meantime.

181. Lord Stanley of Alderley.] I think I understood you to say that in no instance had you granted a lease except to the proprietor of the adjacent land, or a person holding the fishing under him?

I am not aware that we have. Probably you would allow me to mention any instances, if there are such, on a future occasion; perhaps it would also be convenient that I should mention that there is no analogy to be derived from the English law whatever with regard to the right to salmon fishings in Scotland. By Magna Charta the Sovereign in England gave up altogether, as the English courts have held, the right of creating a several or exclusive fishery in public rivers and waters; that has been the construction put upon the 16th article of Magna Charta by the English courts, and I may mention that in America, where they certainly carry the prerogative in some instances rather further than we do in England, the court of New York has held that the 16th article of Magna Charta only prevents the Crown from creating exclusive rights of fishery for its own benefit or pleasure, for the pleasure of the Sovereign; and that it had the right after Magna Charta to grant that privilege to a subject, and accordingly a grant made by Charles the Second of an oyster fishery was sustained; the court of Maryland, on the other hand, has put the same construction on Magna Charta as that which has been put by the English courts; and has held that it was a total renunciation by the Sovereign of the right to create several or exclusive fisheries.

182. Were

182. Were not there some fish particularly retained on the part of the Crown : *H. Watson, Esq.*
for example, sturgeon?

The sturgeon, the whale, and perhaps the porpoise; and some have said that even the grampus is a Royal fish. We have considerable doubt with regard to the whale, whether the Crown is entitled to the whole; I believe it has been said that the King is entitled to the head, the Queen to the tail, and that the body goes to the captor. I believe the porpoise and the sturgeon belong wholly to the Crown; at all events the sturgeon does. I think the Lord Advocate laid down the right of the Crown to salmon fishing in Scotland; that is quite distinct from the law of England. In Scotland, however, the Crown has no property in the salmon till it is caught; neither has the Crown's grantee any property in the salmon till it is caught. It is not a larceny or a felony to take salmon before it is caught and made the property of the captor; it is a civil injury to the right of property, and a trespass is committed on the salmon fishing. In England the Crown would have a right actually to recover the specific Royal fish, or the head or tail of a whale which is taken. There are two English Acts of Parliament, regulating salmon fishing, to which perhaps your Lordships may wish to refer. One Act is the 3d of James I, chapter 12, which is an Act for the better preservation of sea fishing, and it recites, "Forasmuch as it is certainly known by daily experience that the brood of sea fish is spawned and lieth in still waters, where it may have rest to receive nourishment and grow to perfection, and that it is there destroyed by wears, draw-nets, and nets with canvas, or like engines, in the middle or bosom of them, in harbours, havens, and creeks within this realm, to the great damage and hurt of fishermen, and hindrance of the commonwealth, for that every wear near the main sea taketh in twelve hours, sometimes the quantity of five bushels, sometimes ten, sometimes twenty or thirty bushels of the brood of sea fish, and also those which use draw nets, nets with canvas, or engines in the midst of them, do every day they fish, destroy the brood of all the sorts of fish aforesaid in great multitudes. For reformation whereof, be it enacted by the authority of this present Parliament, That every person and persons that from and after the five and twentieth day of July next ensuing this Session of Parliament, shall erect or set up any new wear or wears along the sea shore," shall be subject to certain penalties. Another Act is the 1 Geo. 1, s. 2, c. 18, which provides, "That no new dam shall be set up in the rivers Severn, Dee, Wye, Teame, Wear, Tees, Ribble, Mersey, Don, Aire," and some other rivers. I have looked through the Salmon Fishing Acts, but these are the only two I can find which I trouble you with a reference to.

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183. Duke of *Richmond*.] Is there anything in those Acts preventing fishing for trout in close time?

Nothing that I am aware of.

184. Lord *Stanley* of Alderley.] What is the law about close time in England?

It is regulated by different Acts of Parliament; the close time is different in different rivers. I am afraid the Acts are extremely voluminous and complicated, so that I can hardly give any general statement upon the subject.

185. The close time is governed by local acts, and there is no general act upon the subject?

Some general acts and some local acts. I am not prepared to give you a statement as to the effect of those acts; they are very numerous.

186. *Chairman*.] Is not the law very defective in England upon that subject? I believe it has been suggested lately that it requires amendment.

187. Duke of *Richmond*.] Do you know whether there is any law in Scotland to prohibit fishing for any fish of the salmon kind in close time?

I am not aware of it. I thought it might be convenient to produce a plan of the fishings actually in question in Gammell's case; they are situated on an open rocky coast in Kincardineshire (*producing a Plan*).

188. *Chairman*.] Have you any further information to give the Committee, or any suggestions to offer upon the subject under their consideration?

The only further observation I have to make is, with reference to the exercise
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H. Watson, Esq.

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of the Crown's right, that is, that from the number of grants which have been made of fishing in the sea, or titles which have been acquired adversely to the Crown, I am afraid that any regulations which the Commissioners of Woods and Forests might make in their leases would be extremely ineffectual for the improvement of the fisheries, because, as has been stated by Mr. Howard, in many cases the result would be, if the bag net fishery were abolished on the ground that it did not pass to the grantee by any existing Crown charter, the fish would go into an adjoining bag net which was granted by a Crown charter, and therefore nothing but a general Act of Parliament would put things on a satisfactory footing.

189. Lord *Stanley* of Alderley.] Have the Crown any rights in Ireland with regard to salmon fishing?

Only the same rights that every proprietor has ; no prerogative rights.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned to Tuesday next,
at One o'clock.

Die Martis, 22° Maii 1860.

LORDS PRESENT:

LORD STEWARD.	Lord POLWARTH.
Earl CAWDOR.	Lrd STEWART of Stewart's Court.
Earl DUCIE.	Lord LOVAT.
Earl INNES.	Lord STANLEY of Alderley.
Lord COLVILLE of Culross.	

THE LORD STEWARD in the Chair.

HORACE WATSON, Esquire, further examined.

Evidence on the
Salmon Fisheries
(Scotland).

190. *Chairman.*] I BELIEVE you have some papers that you wish to put in in connexion with the evidence which you gave at the last meeting of the Committee?

H. Watson, Esq.
22d May 1860.

Yes; at the last meeting of the Committee I was desired to put in a list of leases of salmon fishings granted by the Commissioners of Woods in 1848, another list of the renewals of these leases, and a third list of the persons who have agreed to accept of leases from the Crown for the three seasons of 1859, 1860, and 1861, on the conditions contained in Mr. Howard's circular of July 1859, issued after the decision in Gammell's case was pronounced by the House of Lords. I will hand those lists in, with the permission of your Lordships.

The following statements are delivered in :

No. 1.

LIST of LEASES of Salmon Fishings, granted by the Commissioners of Woods in 1848, for a Term of 11 Years from Martinmas 1847, which expired at Martinmas 1858.

Names of Lessees.	Lands, ex adverso of which Fishings lie.	County.	Rents.
			£. s. d.
George Rainy - - -	Island of Rasay - -	Inverness - -	5 - -
R. B. Æ. Macleod - - -	Easter Aird and Easter Tarbert.	Ross-shire - -	10 - -
Thomas MacPherson Grant -	Meikle Dysart - - -	Forfar - - -	20 - -
Miss Kinloch and others - -	Carnoustie - - -	Forfar - - -	2 10 -
James Watt - - -	Whitehills - - -	Banff - - -	7 10 -
Lady Keith Murray's Trustees	Dunnottar - - -	Kincardine - -	4 - -
		£.	49 - -

H. Watson, Esq.

22d May 1860.

No. 2.

LIST of RENEWALS of the Leases mentioned in List No. 1.

Leases.	Lands, ex adverso of which Fishings lie.	County.	Conditions, &c. on which granted.	Rents. £. s. d.
Misses Kinloch and others -	Carnoustie -	Forfar - -	31 years to Martinmas 1890, on conditions in circular by Mr. Howard, in July 1859.	5 15 -
J. MacPherson Grant - -	Meikle Dysart -	Forfar - -	11 years to Martinmas 1868, on conditions arranged prior to decision in Gammell's case, clause as to fixed engines not being inserted.	20 - -
Lady Keith Murray's Trustees	Dunnottar -	Kincardine - -	11 years to Martinmas 1870, on same conditions as previous lease.	5 - -
James Watt - - -	Whitehills -	Banff - - -	Current till Martinmas 1869; same conditions as previous lease.	7 10 -
Mr. Macleod - - -	Cadboll - -	Ross and Cromarty	This lease, which expired naturally at Martinmas 1858, is still allowed to run by tacit relocation.	10 - -
				£. 48 5 -

No. 3.

LIST of PERSONS who have agreed to accept of Leases from the Crown for the Three Seasons of 1859, 1860, and 1861, on the Conditions contained in Mr. Howard's Circular, of July 1859, issued since the decision in Gammell's Case.

Name of Lessees.	Lands, ex adverso of which Fishings lie.	Counties.	Rents.
			£. s. d.
Hercules Scott - - -	Brotherton - - -	Kincardine - - -	14 - -
Captain Scott - - -	Knox - - -	Ditto - - -	5 10 -
Lord Arbuthnot - - -	Katterline - - -	Ditto - - -	5 - -
Mr. Stewart - - -	Hilton - - -	Ditto - - -	2 - -
Michael Tarrel - - -	Munduff - - -	Ditto - - -	12 - -
James D. Nicol - - -	Skateraw - - -	Ditto - - -	5 - -
Mr. Duguid - - -	Cammackmore - - -	Ditto - - -	15 - -
Ernest Gammel - - -	Portlethen - - -	Ditto - - -	75 - -
Rev. W. Pirie - - -	Findon - - -	Ditto - - -	125 - -
James D. Nicol - - -	Cairnrobin - - -	Ditto - - -	35 - -
J. Blaikie - - -	Cove - - -	Ditto - - -	115 - -
G. F. Muir - - -	South Loriston - - -	Ditto - - -	12 10 -
Alexander Cranbie - - -	North Loriston - - -	Ditto - - -	40 - -
James Ferguson - - -	Altens - - -	Ditto - - -	80 - -
Alexander Davidson - - -	Balnagask - - -	Ditto - - -	25 - -
James Walker - - -	Hopeshill and Blairton - - -	Aberdeen - - -	5 10 -
Ad. George Ferguson - - -	Blackhouse - - -	Ditto - - -	12 - -
Mrs. Brodie Dunn - - -	Windyhill - - -	Elgin - - -	4 - -
Miss Ross - - -	Shandwick - - -	Ross and Cromarty - - -	5 - -
John M'Hutcheson - - -	Fisherton and Dumbrains - - -	Ayr - - -	1 - -
Lady Abercromby - - -	Netherlaw - - -	Kirkcudbright - - -	4 - -
Henry M. Moreton - - -	Cove - - -	Argyle - - -	{ 8 - -
Henry M. Moreton - - -	Largie - - -		
			£. 607 10 -

I was desired by another noble Lord to furnish a return of the number of persons to whom circulars were sent from the Office of Woods in July 1859, the number of persons who have already accepted or agreed to accept leases from the Crown, the number of titles now under investigation, and the number of persons from whom no answer has been received. I have subjoined to that list a note explaining why

why the aggregate of the number of persons who accept leases, of those whose titles were under investigation, and those from whom no answer has been received, has been detected from the number of persons to whom the circulars have been sent. The result will not be to show the number of persons whose titles have been since admitted, because many of those titles may, on further investigation, be found not to be so completely established as may at first have been supposed; and therefore I think at present the number of titles established cannot be furnished with accuracy.

H. Watson, Esq.

22d May 1860.

The following Statement is delivered in :

SALMON FISHERIES, SCOTLAND.

Number of persons to whom circulars were sent from the Office of Woods in July 1859 -	345
Number of persons who have already accepted, or agreed to accept, leases from the Crown -	29
Number of titles now under investigation, about -	180
Number of persons from whom no answer has been received, about -	127

In other cases *prima facie* evidence of title has already been produced, but no formal decisions or opinions have yet been given on those titles by the Court of Session or the law officers of the Crown in Scotland. And it is possible that further investigation may result in the number of titles adverse to the Crown being either increased or reduced. The inquiry is not yet in a state in which it would be practicable to supply a statement of the exact number of titles which can be established against the Crown. And it may be added, that in some cases the circular has reference to several fishings, and the claim may be good as to part and bad as to the residue, or the fishing may be claimed over too large an area. For these reasons, the figures given above are only approximate.

The Witness is directed to withdraw.

MR. ALEXANDER JOPP, examined.

191. *Chairman.*] YOU are, I believe, an advocate at Aberdeen?
I am.

Mr. A. Jopp.

192. Have you been connected with salmon fisheries for a considerable period of time?

Somewhere about 35 years.

193. Have you also for some time been clerk to the heritors of the rivers Dee and Don for the protection of the fisheries in those rivers?

I have been clerk to the heritors of the Dee, since the commencement of the operation of the Act in 1828.

194. I believe you are also the author of a statement regarding salmon fisheries, which has been printed and published?

Yes, I prepared a statement for the information of the proprietors of the Dee and Don for their consideration, as to whether they should take any steps in the expectation of improving the state of the salmon fisheries; I will, with the permission of the Committee hand in the pamphlet. (*Handing in the same.*)

195. Is it your opinion that the produce of the salmon fisheries of late years has sensibly decreased in the rivers Dee and Don?

It appears to be a matter of fact; it is hardly a matter of opinion. There can be no doubt of the fact.

196. Will you state the grounds on which you believe that to be the case?

The grounds on which I believe that to be the case, are the result of observation and experience; knowing what were the takes before the introduction of bag and stake nets, and knowing what have been the takes since; all which is detailed in my pamphlet. It contains the following statement showing the number of boxes of Scotch salmon sent to the London market from the year 1834 to the year 1859 inclusive:—

Mr. A. Jopp.

22d May 1860.

STATE of the Number of Boxes of Scotch Salmon of 112 lbs. each, sent to the London Market from the Year 1834 to the Year 1859 inclusive; and the Average Price per Pound per Annum during that Period.

YEAR.	Number of Boxes.	Average Price per lb. per Annum.	YEAR.	Number of Boxes.	Average Price per lb. per Annum.
		s. d.			s. d.
1834 - -	30,650	- 9½	1847 - -	20,112	- 9½
1835 - -	42,330	- 9	1848 - -	22,525	- 8½
1836 - -	24,570	- 10½	1849 - -	23,690	- 7½
1837 - -	32,300	- 10	1850 - -	13,940	1 - 8
1838 - -	21,400	- 10½	1851 - -	11,593	1 - 8
1839 - -	16,340	- 11	1852 - -	13,044	- 11
1840 - -	15,160	- 11	1853 - -	19,485	- 10
1841 - -	28,600	- 8½	1854 - -	23,194	- 9½
1842 - -	39,417	- 7½	1855 - -	18,197	- 11½
1843 - -	30,300	7½ and 3-16ths.	1856 - -	15,438	1 - 8
1844 - -	28,178	7½ and 3-16ths.	1857 - -	18,654	- 11½
1845 - -	31,062	7½ and 1-16th.	1858 - -	21,564	- 10½
1846 - -	25,610	- 8½	1859 - -	15,823	1 - 7

197. Do you conceive that the quantity of salmon taken in the stake and bag nets in the estuary, or on the sea coast, compensates for the diminution that has taken place in the river fisheries?

No. I am certain that the aggregate quantity has very much fallen off, taking the sea and the rivers together.

198. In your opinion, the only effectual remedy for that evil is the abolition of the stake and bag nets, and other fixed engines?

That is my opinion.

199. *Earl Cawdor.*] Do you mean to extend your answer to cruives, as well as to stake and bag nets?

Cruives are in rather a different position; but my opinion is, that bag and stake nets and cruives should all be removed.

200. *Chairman.*] Are you aware that a court of law has decided that the grantees of fisheries on estuaries or on the sea coast have the right to take fish by any means that they can employ for that purpose?

I am aware of the case, to which I presume your Lordship refers. It was more a negative decision than a positive decision. The court, so far as I recollect, held that machinery of that description was not prohibited by the Scotch Acts on which the appellants relied.

201. Do you believe that the proprietors and grantees of such fisheries have or have not a legal right to use any other means of taking fish than the net and coble?

I can hardly hazard an opinion as to the right; it is clear, so far as I understand, that it is not forbidden.

202. If it is not forbidden, do not you conceive that the proprietors and grantees of such fisheries would have an equitable, if not a legal right to compensation if Parliament interfered to deprive them of the rights which they now possess by law?

No, I do not; I think those coast proprietors would be just in the same position as the river proprietors were in the 16th century, when they were prevented from using fixed machinery.

203. Would not a proprietor on the coast, who has received a grant from the Crown of a fishery, be able to dispose of that right if he were to sell the property?

Certainly.

204. Supposing that the purchaser of an estate, to which that right is attached, has given a valuable consideration for it, do not you think there would be a hardship in depriving him of that right without compensation?

I think he must have made his purchase subject to such regulations as the Legislature may from time to time establish. I believe it to be the fact that no Crown grant exists except in localities where the net and coble can be used; therefore

fore it is not necessary for the grantee to use this fixed machinery in the enjoyment of his grant.

205. Are not you aware that the produce of the sea coast fisheries has very largely increased since the introduction of this mode of fishing by fixed engines?

Yes. I am aware that the produce has been transferred from the rivers to the sea.

206. Is it not the fact that the proprietors of the sea coast fisheries now derive a much larger income from their fisheries than they did before the introduction of the improved mode of fishing?

To a very great extent.

207. If they have a legal right, do you think that you can fairly and justly deprive them of that right without making them compensation?

The question is whether they have a legal right.

208. I understood you to say that it had been decided by the courts in Scotland that that mode of fishing was not prohibited?

That is the import of the decision as I understand it.

209. If that be so, is it not the fact that they have a legal right so to fish, if it is not forbidden?

The Lord Chancellor in pronouncing that decision, found that the river proprietors had no title to sue, and he reserved any opinion as to the right of the Crown to interfere in the exercise of that mode of fishing.

210. I am now speaking of the decision of the courts in Scotland?

That case was appealed to the House of Lords.

211. Was the case to which you are now referring decided by the House of Lords?

Yes; it was decided in 1828, I think.

212. Are you referring to the case of Gammell?

I am referring to the case of Lord Kintore against Forbes, in 1828. The case against Gammell was decided last year.

213. Are the Committee to understand that you express a doubt of the legality of stake and bag nets, as they are now used in the sea coast fisheries of Scotland?

It is for a much higher authority than I am to express an opinion on that subject.

214. Are you of opinion that that mode of fishing is consistent with the interests of salmon fisheries generally?

Decidedly not.

215. Then you are of opinion that it would be expedient and advisable to abolish the right to use fixed engines if it exists?

I am.

216. Are you also of opinion that a general measure ought to be introduced for the purpose of regulating the salmon fisheries of Scotland?

Yes.

217. What are the principal provisions of the measure that you think necessary and expedient, that you would recommend for the adoption of Parliament?

I think the abolition of all fixed machinery and a return to the old method of fishing by net and coble would restore the salmon fishing property to the state it was in before.

218. Are you acquainted with the habits of the salmon as a fish from your connexion with salmon fishing generally?

I have a general acquaintance with their habits; I do not pretend to be a naturalist.

219. It has been stated that each breeding salmon contains from 17,000 to 20,000 ova?

Naturalists say that, but I cannot state that of my own knowledge.

220. You do not disbelieve it?

No.

(135. 2.)

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221. If

Mr. A. Jopp.

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Mr. A. Jopp.
 2nd May 1860.

221. If that be so, provided a sufficient close time were enforced, do not you think that there would be an abundant supply of salmon going up the river in spite of the fixed engines which are now in existence?

I am forced to come to the opposite conclusion from the state of matters as they stand, because the rivers have been protected better since the establishment of stake nets than they were before, but still a falling off has taken place.

222. Are not a great quantity of fish destroyed during the present close time, from the fact that many fish ready to spawn are taken in those nets and engines in going up the rivers?

There is a large quantity taken in the stake nets on their way to the rivers, and quantities are sent to sea that never reach the rivers at all.

223. Would not that rather show that the close time is not sufficiently long?

I think the close time ought to be made a little longer. It was about as long before; the protection now is better than it was then, and yet the result is quite plain.

224. Lord Colville of Culross.] Is the protection in the upper waters as good now as it was then?

Better.

225. In all rivers?

I can only speak of those rivers which are within my personal knowledge.

226. Do you know the Spey?

I know the Spey, but not intimately enough to express an opinion about it. It is very carefully protected, as I understand.

227. Earl Innes.] Do the Don and the Dee close on the 14th of September?

Yes.

228. Earl Cawdor.] Do those fish that have escaped the stake and bag nets in the rivers with which you are acquainted, get up the rivers without any other impediment; are there any fixed engines in those rivers to prevent their ascent?

There are cruives in the Don, but not in the Dee.

229. In the Don, can any fish pass those engines?

The fish do pass them, but not so well as if they had a clear run, of course.

230. In point of fact, very few fish get up the river before the end of the season?

A good many fish get up the Don; the cruives have not been in very good condition for some time. There has been always a question with the upper heritors. At this moment there is a piece of the dyke down, and there are plenty of fish getting up.

231. Are the upper heritors satisfied with the state of things as regards the fixed engines?

Not at all, I believe.

232. Earl Ducie.] Are there no other obstructions besides the cruives in these rivers?

There are dam dykes in the Don, but not in the Dee.

233. Mill-dams?

Yes.

234. Chairman.] Do you believe the river proprietors would willingly consent to relinquish their right to maintain the cruives, if the right to maintain the bag and stake nets on the coast were abolished?

The cruives belong to the lower heritors.

235. In the lower part of the river, not on the sea coast?

In the river, not on the sea coast; there is one cruive on the Don about 12 or 14 miles from Aberdeen, and the other is close to Aberdeen.

236. The question which I put to you was, whether you believe that the river proprietors would willingly consent to abolishing their cruives, provided that the right to maintain stake and bag nets on the coast were also abolished?

I think they ought to do so, and I think they would.

237. Lord

237. *Lord Stanley of Alderley.*] Do you think that the upper heritors would be willing to give compensation to the possessors of bag nets and stake nets in the river if they were to be removed?

I do not think the upper heritors would recognize any claim to compensation.

238. It has been stated that the failure of the fishery in the Don is attributable to the use of deleterious materials in the manufacture of paper, which has destroyed the salmon, and that the deficiency of salmon in the river may be attributed to that cause rather than to the erection of stake nets and bag nets on the coast; is it your opinion that such is the case?

I think such matters are injurious to the fisheries; but there were manufactories on the Don, and to a much larger extent, previously, than there are now. The paper works, no doubt, are to a greater extent now; that is to say, there is more work done than there was before.

239. You are aware that different ingredients are now used in the manufacture of paper, which are supposed to be more poisonous, and which were not used in former times?

I understand so; though they are injurious to the fish, I do not think they could have had any effect in diminishing the quantity of fish like what has resulted.

240. *Lord Colville of Culross.*] Is it not the fact that the fish do not rest in the part of the river where these manufactories exist, but freely run past them?

Yes.

241. *Earl Ducie.*] Do not salmon chiefly travel in floods when the deleterious matter is highly diluted?

Yes.

242. *Earl Cawdor.*] Is it not the case that in some of the rivers in Scotland, the salmon have been entirely destroyed by these manufactories?

It may be so; but I do not know of any river where that has taken place.

243. *Lord Lovat.*] Are there any manufactories on the Dee?

There is one paper manufactory at Culter.

244. Has that been long established?

No. I can hardly say that there has been any appreciable effect arising since its establishment.

245. You have not perceived any difference in the salmon fisheries since the establishment of that manufactory?

I am not prepared to say that I have. I can easily ascertain the fact. There was a paper manufactory at Culter before, but not carried on to the same extent, or in the same manner.

246. *Lord Stanley of Alderley.*] Do you attribute the diminution of the fish in the Don, almost entirely to the existence of stake nets and bag nets on the coast?

Yes.

247. *Chairman.*] After the statement of the number of boxes of salmon sent from the year 1834 to the year 1859 inclusive, to the London market, you go on in your pamphlet to say, "It thus appears, that notwithstanding all the facilities for sending fish to a ready market by means of railway communication and fast sailing steamers, Scotland only now supplies about one-half the quantity of fish for the London market which it did in 1834." It appears by that statement, that in the year 1836, 24,570 boxes were sent to London, and in the year 1858, 21,564 boxes were sent to London; is it quite fair to say, that because in the year 1834, 30,650 boxes were sent, and in the year 1859, 15,823, that Scotland only sends half the number of boxes that it sent 25 years ago?

I merely contrast those first and last items. The table is before you, and of course it speaks for itself.

248. In the year 1839 there were 16,340 boxes, and in the year 1840, 15,160, is it a fair inference to draw from that table that because in the year 1859 there were only 15,000 boxes sent to London, that only half the quantity of salmon sent 25 years ago is now sent from Scotland to London?

(135. 1.)

G 2

I do

Mr. A. Jopp.

22d May 1860.

Mr. A. Jopp.
22d May 1860.

I do not see that there is any unfairness in showing the decrease that has been going on gradually.

249. Is that quite the fact; because I see, as I said before, that in 1838, 21,400 boxes were sent to London; in the year 1839, 16,340; and in the year 1840, 15,160; would not that rather tend to show that the quantity fluctuates from year to year, than that there is a gradual decrease in the quantity of salmon taking place?

There is no question that it does fluctuate; this table shows that it fluctuates, and shows also the decrease.

250. You have taken the first and the last year; in 1834 there were 30,650 boxes sent to London; and in the year 1859 only 15,823. Undoubtedly taking those two years, the quantity has fallen off one-half; but looking at the other years, can the same inference be drawn from that table?

Not if it is taken upon the average, but I merely meant to put the one as contrasted with the other. May I be permitted to explain with regard to these boxes lest there should be any misunderstanding. The fish are sent from Scotland in larger quantities than formerly; a box may contain perhaps 170 lbs. now, but 112 lbs. is the recognised box of salmon; and in this table the boxes are converted to 112 lbs., no matter whether there may have been quantities of two cwt. in each box.

251. *Earl Cawdor.*] Is it not possible that the quantity consumed in Aberdeen and the neighbourhood, and the quantity sent to other places besides London may have increased, and account for the falling off in the quantity sent to the London market?

That has increased, but not to a great extent.

252. *Lord Stanley of Alderley.*] Has any attempt ever been made at law to put down stake nets upon the coast, following the decision upon the Tay case?

It was decided in the House of Lords, in the year 1828, in the case of Lord Kintore against Mr. Forbes, of Seaton; I can furnish the decision in that case.

253. *Earl Innes.*] What was the date of the first putting up of stake and bag nets on the Don and the Dee?

The decision to which I have referred was in 1828; it must have been somewhere between 1822 and 1824.

254. Are they in the estuary?

There is no estuary; they are on the sea coast.

255. Have you any fixed engines in the rivers themselves?

Cruives.

256. Have you any stell nets or any hang nets within the rivers themselves?

There are some nets that are called feath nets in the Don; those are hang nets, and I think they ought to be removed.

257. *Chairman.*] Have you found the Act of the 9th Geo. 4, chap. 39, for the protection of the fisheries, work satisfactorily on the whole?

On the whole, I have.

258. Are there any particular provisions which you think ought to be introduced into a Bill for the general regulation of the salmon fisheries of Scotland?

I think there should be a provision against the introduction into rivers of such deleterious matters as your Lordships have named, and that sawdust ought not to be put into rivers; it injures the spawning beds and fry.

259. *Earl Cawdor.*] Is not it an offence at present, by law, to put any deleterious matters into rivers?

At common law.

260. *Chairman.*] Is not that a remedy which would be very difficult to enforce?

Yes.

261. *Earl Innes.*] Did you find a sensible diminution in the amount of fish taken in the rivers immediately arise on the putting down stake nets and bag nets on the coast?

No; it was a little time before they took effect, but very slowly, because the diminution

diminution in the river fishing was compensated by the quantity taken in the sea for a while.

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262. The river fisheries fell off?

Yes.

263. Lord *Stewart* of Stewart's Court.] Have you any data to enable you to say that fish are destroyed by these deleterious substances that get into the water; have any fish ever been found dead or destroyed by these deleterious substances?

Not that I am aware of, to any extent.

264. It is merely a supposition that these substances do destroy the fish?

They either destroy the fish or may possibly prevent their entering the rivers; perhaps it is more a theory than the fact.

265. Earl *Ducie*.] You have given in this table, beginning in the year 1834, and ending in the year 1859; the first number given is 30,650, and the last is 15,823, which shows a great decrease when you compare those two periods. Have you ever worked this table out in quinquennial periods?

No, I have not tried that; I believe the cycle is reckoned to be nine years. I did not advert to that at the time this table was made up; but on looking at it I do not think it would have produced a very materially different result.

266. With regard to taking the whole instead of single years, have you worked it out in any cycle; have you taken periods of nine years?

No, I have not.

267. Is it your opinion that there has been a decrease in the take of salmon in these rivers, if you take any number of years you choose instead of individual years; for instance, taking quinquennial periods or decennial periods?

Certainly.

268. Lord *Lovat*.] Is salmon put into larger boxes when it is sent in ice by railway?

Not larger boxes, but less ice is required, and consequently the box holds more fish.

269. *Chairman*.] Have you any further information to give or observations to offer to the Committee?

Nothing occurs to me beyond what I have stated.

The Witness is directed to withdraw.

Mr. GEORGE DAVIDSON examined.

270. *Chairman*.] I BELIEVE you reside at Aberdeen?

I reside at Aberdeen.

Mr. G. Davidson.

271. You are the manager of the salmon fishings of George and William Davidson, of which firm you are now the only surviving partner?

I am.

272. I believe you can speak to the state of the salmon fishings, from practical knowledge and personal knowledge, for a period of 45 years?

I have been actively employed in managing salmon fishings for at least 45 years; my father and grandfather, I suppose, were connected with fishings for at least 100 years.

273. You have been connected with the upper and lower fishings on the Dee, and with fishings on the Don and on the Ythan?

Yes, those are the fisheries I have been connected with.

274. What fisheries are you now connected with?

I am connected with the fisheries on those three rivers, and on the coast adjacent.

275. Are you the proprietor of those fisheries?

I am a proprietor on the Dee and the Don.

276. A lessee?

(135.2.)

G 3

I am

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I am a proprietor and lessee on the Dee and the Don, and lessee merely on the Ythan.

277. Earl Cawdor.] Is that the only part of Scotland with which you are concerned in salmon fishings?

My personal experience is confined entirely to the rivers and coast of Aberdeenshire.

278. *Chairman.*] Has the quantity of salmon taken in the rivers which you are connected with seriously diminished within the last few years?

There has been a very considerable decrease for a long period past.

279. Are you prepared to show to what extent the quantity of salmon taken has decreased in each river?

I can speak as to the accuracy of Mr. Jopp's statement which he has produced, and I am perfectly prepared to say that it is a fair and correct statement of matters for the period it embraces, and of the present state of those fisheries.

280. Has that decrease been coincident with the establishment of bag and stake net fisheries on the sea coast?

It had taken place some years previous, I think, arising from over-fishing in the ordinary way, and likewise that the close time was not of the same length as it is now; but the diminution has gone on in an increased ratio since 1829, I think.

281. You do not attribute the decrease in the quantity of salmon taken in those rivers exclusively to the use of those fixed engines on the sea coast?

It was going on previously, but it is now in a far greater degree, since 1828 or 1829, I think; since the stake and bag nets were in operation upon the Aberdeenshire coast.

282. It appears, by a Table contained in Mr. Jopp's printed statement to which you refer, that the take of salmon in the year 1839 was 16,340 boxes of 112 lbs. each, and that in the year 1858, 21,564 boxes were sent to London; that would not show, would it, any considerable decrease?

No, but there are always seasons of very great fishing; a series of good years and a series of bad.

283. Would it be quite fair to take the year 1834, in which 30,000 boxes were sent to London, and the year 1859, in which 15,000 only were sent to London, as a proof that the salmon fishery has decreased one-half?

I do not think that would be fair. I rather think that the fairest way would be to take it on an average of five or seven years, because there are great variations; 1858 was an immense fishing year.

284. How was it that the stake and bag nets did not produce the same effect in that year as they are supposed, at least, to have produced in other years?

I suppose the effect was much the same, because there was a larger quantity of fish to operate upon; it was generally all over Scotland an abundant fishing year in 1858.

285. Lord Polwarth.] Were stake nets introduced in any great number previous to the years 1828 and 1829?

There was one stake net, I think, upon a fishing adjoining the Don in the year 1821, and it was the subject of litigation for a long period. I think the case was decided in the House of Peers in 1828, and then after that the fishing became general in the same way.

286. There was an increase in the number of stake nets after that decision?
An immense increase.

287. And a great decrease in the amount of salmon?
There was a decrease in a far greater ratio than at any previous period.

288. Do you attribute the decrease to the quantity of fish that was taken in stake nets, and also those that were taken in the upper part of the rivers, from over-fishing the rivers after the year 1829?

I attribute it to over-fishing upon the sea coast with those stake and bag nets, and to the almost total exclusion of the fish from the rivers; in fact, the fishings in the upper rivers have almost been extinguished.

289. Earl

289. Earl *Innes*.] The fish are all now killed on their way to the rivers, and the fish were killed before in the rivers? Mr. G. Davidson.

Quite so. 22d May 1860.

290. Are you aware that the stake and bag nets have a tendency, the stake nets especially, to drive off the shoals of fish?

They are used to such an extent, that I think they kill too many; but my belief is, that a great many are diverted from the rivers.

291. You think they abstract as well as kill?

Yes.

292. Lord *Stanley* of Alderley.] If they are diverted from the river, where do you think those salmon go?

I think it is probable that in a large proportion of them the instinct is so strong that they will attempt to enter the river again; the great attraction is the fresh water.

293. Supposing that the salmon are driven out into the sea by the operation of the stake nets upon the coast, where do you think those salmon go?

That I could hardly say. I do not think they go far away, just fall, perhaps, into the same track, following out their instinct in seeking the river.

294. Is it your opinion that the salmon always seek the same river every year, so that if they are driven out to sea, they will seek the same river they were trying to get to, by clinging to the shore?

Yes.

295. What injury will it do the salmon if eventually they go to the same river which they intended to go to, although they were at first deterred by the stake nets?

It would do no damage if they all got back again.

296. Is it not your opinion that they all do come back; do you think that any permanently remain in the sea?

That I would not hazard an opinion upon; that they do all come back I could not venture to say. There are fish to be got in the sea, I suppose, at every period of the year.

297. But is not the instinct of the salmon so strong, that for the purpose of spawning it must ascend the rivers to do so?

Yes, their instinct leads them to the river for the purpose of spawning; but it is an extraordinary thing that they come in regular succession, a large body of them, long before the spawning season. That is a thing which has often struck me as extraordinary. It cannot be the spawning, although they come for that purpose; but they come in regular succession in the months of May, June, and July in the largest quantities, long before the period of spawning arrives.

298. Lord *Colville* of Culross.] Do not they come to get rid of the sea lice in the fresh water?

I have heard that said.

299. But generally speaking, the salmon coming from the sea have sea lice on them on coming into the fresh water?

For one that has any insects upon it, there are 100 without any.

300. Lord *Polwarth*.] You have stated that the fish are driven out to sea when they meet those stake nets; do you believe that they meet with any other enemies than the fishermen when they are out at sea?

I do not think they do.

301. Are salmon destroyed by fish of prey; for instance, porpoises?

They are attacked by porpoises, but principally in the estuaries and firths; the porpoises and seals both follow them there, because in the narrow channel they have a better chance of capturing them; but the salmon, I think, with a fair field, would beat the seal or the porpoise either.

302. Lord *Stewart* of Stewart's Court.] May not a stake net affect the motion of the salmon, so that it would prevent the salmon from getting from the sea from the porpoise?

It would capture the fish.

(135. 2.)

G 4.

303. Were

Mr. G. Davidson.
22d May 1860.

303. Were there no stake net, the fish might get away from the sea or the porpoise, whereas, if there are stake and bag nets, they impede his motion and allow him to fall a prey?

Quite so.

304. Lord *Lovat*.] Do not the shoals hover about the mouth of the river for some days, before they come in?

The way they approach the river is this, not in a parallel line with the mouth of the river, coming right in from the sea; but the fresh water is carried by either the flood or the ebb tide along the coast; it does not go right into the sea for any distance, and the salmon are all found in shore, seeking the fresh water.

305. If the salmon are frightened away from the rivers, will they not try to come back with another tide?

Yes, I think that the greater portion of them do.

306. They may come towards the rivers from day to day every tide, leaving some in the stake nets?

They will leave some in the stake nets.

307. Earl of *Cawdor*.] If your theory, that the salmon are frightened by the stake nets and driven out to sea, is correct, how do you account for the salmon being caught in the stake nets?

I could not say the quantity that are driven out, but it is possible that some of them, from the position of the net, do not strike the leader. If they strike the head of the net they must be driven out; but those that strike in the direction to be caught, that is in the leader, continue until they get into the chamber of the net, and of course must be captured.

308. Would the fish necessarily be driven further out to sea than they would by a ridge of rocks, or any other impediment?

Perhaps not, but a ridge of rocks is a natural impediment.

309. What evidence is there of the salmon being driven out to sea, so far as to lose their way to the mouths of the rivers, of which they are supposed to be in search.

I could not say.

310. Lord *Stanley* of Alderley.] Are there many cruives upon the Dee?

There are no cruives upon the Dee.

311. Upon the Don are there any cruives?

There is one cruive upon the Don, I think.

312. Is that cruive constructed according to the law, with the openings of a sufficient size?

I am not acquainted with that; I never had any share in the cruive fishing, therefore I could hardly speak correctly with regard to the cruive fishing upon the Don.

313. Did you ever hear any complaint that the Sunday slap was not properly observed, and that a sufficient space was not given for the salmon to ascend the river during that period?

I have heard the upper proprietors complaining of something or another as not being legal.

314. You are not aware that the law is not properly observed with regard to keeping the cruives open during the proper time on the Sunday, and up till the Monday morning?

No, I am not aware of that.

315. Earl *Cawdor*.] Is it the fact that many salmon get up the rivers which you are acquainted with, in the early part of the season?

They are more likely to get up in the early part of the season, from the flooded state of the rivers.

316. Do a great many fish get up in the early part of the season?

Not a great many.

317. *Chairman*.] Do you believe that it would not be possible to enforce what is called the Saturday slap in the case of bag and stake nets?

With

With regard to stake nets, it would be perfectly possible to enforce the Saturday slap, in my opinion. *Mr. G. Davidson.*

22d May 1860.

318. But not in the case of bag nets?
Not in the case of bag nets.

319. Because it would be attended with too much expense?

Not only the expense, but it would be impracticable; it could not be uniformly observed, as there are many bag nets in situations which can only be approached by boats.

320. Lord *Stanley* of Alderley.] Is the Saturday slap observed in the case of the stake nets?

Not that I am aware of; I do not believe it is observed anywhere.

321. Do you think it would be any advantage to the fishings if the law were made to apply to stake and bag nets, so that they should be compelled to observe the Saturday slap, in the same way as the proprietors of cruives in the rivers are obliged to do.

Unless the bag nets were removed altogether I do not think it would be of much service.

322. Would it be practicable, do you think, with regard to stake nets, to make any regulations by which the Saturday slap might be as well observed in them as in the cruives?

I think, perfectly; they are approached at low water, and the fish removed; a man goes with a creel on his back, and takes the fish out on the Sunday, the same as any other day.

323. Do not you think it fair and just that the same law should apply to the possessor of stake nets, as is now applied to the possessor of cruives in rivers, with regard to observing the Sunday slap?

In regard to bag nets and stake nets, that is my opinion, if it was at all possible.

324. Lord *Stewart* of Stewart's Court.] How would it be possible?

It is perfectly possible with stake nets.

325. By making a slap?

By making a slap, because they can be approached; they are placed within the flood-mark; the head of the net is dry at low water.

326. Lord *Stanley* of Alderley.] You might make an opening, I suppose, in the stake net?

Yes; you could make an opening perfectly well on the Saturday night; there are many plans that might be suggested for meeting the thing, either shutting up the doors, or tricing up the head of the net, which they call the fish chamber.

327. Has any attempt ever been made to enforce this regulation upon the possessors of stake nets?

Never where I have been concerned.

328. Has the question ever been agitated at Aberdeen?

Never.

329. Do you think it would be of great service to the fishings if such a regulation were enforced?

It would be very serviceable; the upper proprietors upon the rivers are the greatest sufferers by the stake and bag nets being in operation during Sunday. I was lessee, in my younger days, of a Dee fishing for six miles up, and Monday morning was our most successful day of fishing; I have known hundreds of salmon caught six and seven miles up the river on the early tide; the fish coming away upon it would reach 12 miles up the river before Monday morning.

330. So that in point of fact the upper river proprietors are precluded from taking any fish on the Sunday, while the stake and bag nets are in full operation during the whole of that period in the sea?

Quite so; they have acquired above 30 days more fishing by the non-observance of the Saturday slap than any other proprietors.

(135. 2.)

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331. *Chairman.*]

Mr. G. Davidson.
 22d May 1860.

331. *Chairman.*] Is it your opinion that any alteration should be made in the law with regard to the close time?

I think it would be well to enlarge the close time.

332. When should it, in your opinion, commence, and when should it end?

My idea is that you might take 14 days from the conclusion of the fishing, on the 14th of September, and make it the 1st of September.

333. That you think would be sufficient?

That would allow a portion of the fish to get to the spawning beds.

334. You think that no red fish would be taken before the 1st of September?

No kelts; no red fish.

335. Lord *Stanley* of Alderley.] Do you think that the same rule with regard to the close time should apply to all the rivers in Scotland; or that there should be a different rule in different rivers?

There is a different natural close time, and I think it would be well if there was a special close time for different rivers.

336. What do you think would be the best mode of fixing the different periods in different rivers; do you think it should be done by regulations, agreed to by the upper and lower heritors of a particular river, or do you think it would be desirable to establish a commission who should take evidence, and from time to time fix the close time in different rivers?

The proper way, in my opinion, would be to have a commission and take evidence of the quantities of fish caught at different periods: that would form data whereby to fix the close time.

337. You think that the establishment of such a commission would be beneficial?

I do; there are many rivers differing from the present uniform close time.

338. Do you think that the Fishery Board of Scotland would be the proper body to whom to commit such duties, or do you think that it would be better to establish a separate commission for that special purpose?

I think the Herring Fishery Board would be perfectly adequate to do it; it is a very simple thing to take evidence as to the different seasons, perhaps monthly, of their fishings. I suppose that, at one time, there was a varied close time, and they would be able to bring forward the state of the fishing at that time, as compared with the present state of the fisheries; that would be of some importance.

339. *Chairman.*] You have spoken of the commencement, but you have not spoken of the end of the close season; when would you terminate the close season?

I think, where I am concerned, I would adhere to the 1st of February.

340. Lord *Polwarth.*] Are the fish all spawned by the 1st of February?

The fish in the river are all spawned.

341. Are there no bagots or fish with roe taken after the 1st of February?

No. There are what we call foul or spawned fish, in their way to the sea, coming down.

342. Lord *Stanley* of Alderley.] Did you ever know of any such fish being taken with stake nets?

No.

343. Lord *Polwarth.*] Are there not unspawned fish taken in the middle of February?

Not after February.

344. Not high up the river?

In my experience I never saw it.

345. Your fishing is confined to the mouth of the river, is it not?

Lower and upper fishings both, I have been concerned with.

346. Have you not heard of fish being taken in the upper part of the river not spawned, in the month of February?

Not with spawn in them; I hear frequently of what the fishermen term kelts, which are the fish spawned, and not having got to the sea to recover.

347. *Chairman.*]

347. *Chairman.*] Would you concede to the upper heritors the right of fishing with a rod for a period after the end of the close season?

I would most undoubtedly do that.

Mr. G. Davidson.

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348. What period would you give them?

At least a month.

349. Lord *Colville* of Culross.] Do not you think, on the rivers that you know, that the rod-fishing might be very well continued to the end of September?

Yes.

350. Lord *Stanley* of Alderley.] Is there any police or water bailiff system established upon the rivers with which you are acquainted?

There is, both upon the Dee and the Don.

351. How are those bailiffs maintained and supported?

There is an assessment on the valued rent of the fishings.

352. It is an actual assessment, not a voluntary contribution?

It is an assessment by law.

353. Lord *Polwarth.*] At what amount per cent. is that assessment made?

I forget; Mr. Jopp is the law agent who has the charge of the thing.

354. Do not you know how much per cent. you pay on your own fisheries?

I think, about two per cent.

355. Lord *Stanley* of Alderley.] Is the assessment levied by any Act of Parliament or bye-law, or is it by mutual agreement on the part of all the different proprietors?

It is, in the existing Act, to five miles along the coast, embracing all the rivers.

356. Is that the case with all rivers, or is it peculiar to the Don and the Dee?

It is not enforced, I think, by the Act, unless with the consent of so many of the proprietors.

357. In point of fact it is a permissive assessment, and not a compulsory assessment?

It is laid down in the Act, but it is open to a meeting of the proprietors on the sea coast and the rivers to assess themselves or not as they please.

358. *Chairman.*] Do you believe that the extension of the close season would in itself be sufficient to prevent the gradual decrease of the quantity of salmon taken?

Not under existing circumstances.

359. You are of opinion that the only effectual remedy for the present state of things is the abolition of the stake and bag nets on the sea coasts?

The entire abolition of the stake and net bags, cruives, and everything of the nature of a fixed machine.

360. All fixed engines?

Yes.

361. In the rivers as well as on the sea coast?

Yes.

362. Would you return to the ancient mode of fishing by net and coble?

Yes.

363. Lord *Stanley* of Alderley.] Did you ever hear it stated that the paper mills upon the Don, by using deleterious substances in their manufacture, have injured the breed of fish, and deterred them from entering the river?

I have heard many complaints.

364. Do you believe that those complaints are founded in fact, or is there any evidence in your possession which would show that such is the case?

I have no evidence to produce in regard to it, but from what I have heard, I believe that those substances have a prejudicial effect.

365. Have the manufacturers of late years used any new materials or ingredients which are of a more poisonous nature than those which were formerly used?

No, there is nothing of the kind new, so far as I am aware; there are now fewer manufactories upon the Don than there were 30 years ago.

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366. You

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366. You do not think that the diminution in the quantity of salmon in the rivers could be fairly attributable to the manufacturers using deleterious ingredients? I do not think it; on the Dee there are actually no manufactories; and on the Ythan there is no manufactory.

367. Lord *Colville* of Culross.] Have you ever found dead salmon, supposed to be killed by substances from those mills?

I have heard of such being the case in some of the mill leads, but they may have been killed by the machinery.

368. The fish found dead?

Yes.

369. Lord *Lovat*.] Have the fish fallen off in the Ythan as much as in the other rivers?

Quite as much.

370. Has it been fished hard?

The Ythan is a very late river; we only commence on the 26th of May, just about this period. A large amount of fish used to be got at the very time when we were giving up at the end of the season.

371. Was not the Ythan preserved for angling for a good many years?

It has never been preserved at all; there is no police upon the river Ythan at all; it is a river that abounds with a variety of trout, and angling is carried on upon it to a very great extent.

372. Lord *Stanley* of Alderley.] Where is the Ythan?

It falls into the sea about 10 miles to the North of the Don.

373. Earl *Ducie*.] The remedy you suggest amounts to this, that you would let a much larger number of breeding fish into the upper waters?

Quite so.

374. *Chairman*.] Would not that object be attained by an extension of the close season?

I do not think it.

375. Because if that were so, no fish ascending into the river for the purpose of spawning could be taken in any of those fixed engines; the only fish taken in that case, by bag and stake nets, would be fish which are not in that state?

Entirely clean fish.

376. If I understand your answer correctly, you think that the extension of the close season would be sufficient to prevent the capture of any fish, except those which have spawned?

Quite so.

377. Lord *Stanley* of Alderley.] Do you think it would be quite fair to abolish all stake nets and cruives without giving the proprietors of them compensation?

In regard to the owners of cruives, I think they would be amply compensated by the increase in the quantity of fish. There is no cruipe proprietor, so far as I am aware, who has not a space of ground for carrying on the net and coble fishing. In the case of stake and bag nets I could not speak with regard to compensation. My idea of the thing is, that those who know the habits of the fish and their movements must be astonished how the stake and bag nets could have been tolerated at all, they are so much in the way of the fish coming to the rivers; they are a complete barrier; and it would be no hardship to make their proprietors return to the old mode of fishing, taking, *en passant*, in the old mode what they can get. But a lot of fixed engines in operation, when it is known that the fish are on their way to the river, are most prejudicial.

378. Are we to understand, therefore, that in your opinion these stake and bag nets being illegal, parties possessing them are not entitled to compensation?

No, I should think not.

379. I think you stated that supposing the stake and bag nets are to be removed, parties entitled to the fishings will still be able to catch the fish by the old system of net and coble?

Yes.

380. Earl

380. *Earl Cawdor.*] Would that system of fishing by net and coble be applicable in places where bag nets are now used?

Mr. G. Davidson.

There are parts where it would not be practicable; but all those that have grants exercised their rights by the net and coble before the stake and bag nets were there.

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381. Not in the place where those bag nets are placed in deep water?

Where they are placed in deep water there are no grants, and they never exercised rights of fishing before in such places.

382. *Lord Stewart of Stewart's Court.*] Are we to understand you to say that in your opinion stake nets and bag nets are not legal; that they have no legal right to put them there?

They have a legal right, because the question was litigated and decided by appeal to the House of Peers.

383. Then comes the question of compensation; if they have a legal right to the stake and bag nets, they have a right to compensation, have not they, if they are taken away?

I understand they have no right, a portion of them, to the fishing at all.

384. *Lord Stanley of Alderley.*] What you mean to state is, that many of those persons who erect stake nets and bag nets, have no grant or charter from the Crown, and have therefore no legal right to the fishing in any way?

That is my opinion.

385. The same parties would be equally unable to take the fish by net and coble as they would by stake and bag nets?

Quite so.

386. In short, they are exercising this right of taking salmon without any authority, or without any right?

Yes.

387. *Chairman.*] Have you founded your objection to the use of stake and bag nets on the ground that they impede and prevent the ascent of the salmon into the rivers?

Quite so.

388. Would not that argument go the length of preventing the use of any nets, or any mode of preventing the fish from entering the river, net and coble, or the ordinary seine net?

Not at all.

389. Do not they all tend to prevent the ascent of the fish to the river?

No doubt they kill; but a net moving along cannot be a serious obstruction to the fish.

390. It is a question of degree, is it not?

Of course.

391. *Lord Stanley of Alderley.*] Do I understand you rightly, that your view of the case is this, that no fixed engines whatever should be permitted either in the rivers or on the coast, because they deter the fish from ascending the rivers?

My opinion is that no fixed engines should be used in the fishings, because they are prejudicial to the fish reaching the river, and unfair towards the river proprietors.

392. Then, with reference to a question which has just been put by the Chairman, who asked you whether it would be equally objectionable to allow people on the sea to fish by net and coble, your answer would not apply; because you would not wish to deter either people on the sea or people on the rivers from fishing in the ordinary mode, either by net and coble, or by rod?

It would not apply, because we have had the experience of the net and coble fishing for hundreds of years, and during the most prosperous times of fishing.

393. *Lord Colville of Culross.*] Have not the salmon fallen off very much in weight?

Yes.

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394. To

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394. To what do you attribute that?

I attribute that to this cause, that the fish are almost all cut down by the extraordinary fishing in the first or second year of their growth. When I was a boy I have seen a salmon of 45 lbs. or 50 lbs. weight, now and then; and out of a parcel of 100 salmon, I would have taken out perhaps 5 per cent. or 10 per cent. of them, weighing from 15 lbs. to 24 lbs.; now such a thing is hardly to be seen.

395. *Earl Cawdor.*] May not that proceed from over-fishing in the river?

The fishing in the river is almost done; it is over fishing some way, but there is hardly any fishing in the river.

396. *Chairman.*] Is not the natural fecundity of the salmon so great that it would provide an abundant supply of fish for all purposes, bag and stake nets, cruives, and so forth, if all the spawning fish were allowed freely to ascend the rivers?

Every fish is in a spawning state at a certain period of the year.

397. *Lord Stanley of Alderley.*] Does not every fish which ascends the river, ascend it with the intention of spawning?

Quite so.

398. When they ascend the river, they may be in a more advanced or a more retarded state of pregnancy, but they have all either got the elements of the spawn in them, or the spawn actually formed?

They are equally advanced in a state of parturition.

399. *Chairman.*] Are not the salmon taken on the sea coast, a finer fish than those taken on the rivers?

The fish taken in the lower part of the rivers are just as good.

400. Is not it the fact that the longer the fish is in fresh water, the more it deteriorates?

It deteriorates the longer it is in fresh water.

401. As far as the public are concerned, it is desirable that a larger quantity should be taken on the sea coast, and in the estuaries?

Decidedly.

402. A large supply of good salmon is thereby produced?

Yes; the lower parts of the river and sea coast produce the finest fish.

403. *Earl Ducie.*] Is there any difference between the condition of the fish caught in the lower parts of the river below the cruives, and of those which are caught in the sea itself?

None whatever; none discernible. I alluded to the fishing in the higher parts of the river.

404. *Earl Cawdor.*] In the neighbourhood of Aberdeen, have the white fishings diminished as well as the salmon fishings?

No, the white fishing is as abundant as ever.

405. *Lord Polwarth.*] Do you attribute the decrease in the size of the salmon at all to any decrease in the food they are supposed to live upon?

No; I stated what I thought the decrease arose from. I believe there is the same food as there ever was. I do not believe there is any alteration; everything in nature is the same.

406. *Lord Stanley of Alderley.*] Do they ever take sea trout in the stake and bag nets?

Yes, they do.

407. Have the sea trout diminished in the same proportion as the salmon in the rivers?

Much in the same proportion.

408. Do you attribute that diminution to the same cause that you attribute the diminution of salmon?

To the same cause.

409. *Earl Ducie.*] You stated that you would be inclined to extend the period of rod fishing to a longer period than at present; what is your reason for wishing to do so?

My

My reason is to interest the upper proprietors in protecting the river during the spawning season; they have it in their power almost more than any police, by making their tenants a sort of watchmen, or a sort of police; but they have taken no interest in the thing for many years now.

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410. At present the upper heritors have very little interest in the river?

None; they have been the sufferers to a great extent of late.

411. Lord *Stanley* of Alderley.] Supposing the bag and stake nets were to be considered legal, and that it should be considered right to give the owners compensation, do you think that the river fishers would be willing to contribute, for the purpose of giving such compensation?

I can only speak for myself. If the abolition of fixed nets could ~~not~~ be otherwise obtained, I should be willing to give compensation to Crown grantees, knowing the immense benefit which I would derive from the thing; but I do not think in fairness that the burden of compensation ought to be thrown upon river proprietors.

412. Speaking from your personal experience, you think that the removal of fixed engines would be of sufficient benefit to yourself to induce you to give compensation for the removal of such fixed engines?

No doubt of it.

413. *Chairman.*] Have you any further information to give the Committee, or any suggestions to offer for their consideration with regard to this question?

I think that, in answer to the questions which have been put to me, I have said everything I wish to communicate. I may say, as a summary, that my idea of the thing is, that the public, as well as the individuals concerned in the rivers, would be all benefited by what I have stated, namely, the entire abolition of fixed engines.

414. But not the proprietors of the fisheries on the sea coast, I presume?

There are many proprietors of fisheries on the sea coast who are also proprietors of river fisheries.

415. Lord *Colville* of Culross.] Have you any personal knowledge of the dam-dykes in the Dee and the Don?

There are no dam-dykes in the Dee; of the Don I have no personal knowledge.

The Witness is directed to withdraw.

MR. WILLIAM HOGARTH, is called, and examined.

416. *Chairman.*] DO you reside at Aberdeen?

I do.

Mr. W. Hogarth.

417. Have you long been extensively connected with salmon fisheries?

All my life.

418. Has not the house with which you are connected for a long period been the tacksmen and managers of the salmon fisheries in various parts of Scotland?

They have.

419. Your house is also the lessee of some fisheries, and the proprietors of others?

Yes.

420. To a very large extent?

A very large extent.

421. Will you give the Committee some account of the various modes of fishing practised in the fisheries with which you are connected in rivers, in estuaries, and also on the sea coast?

In rivers the only mode of fishing acknowledged by law is the wear shot; that is above the tideway.

422. Is that the net and coble?

Yes; but in net and coble fishing wear shot, I must explain that the fish are leading up the current, and the net is coming down meeting them; that is called wear shot; and that is the only mode of fishing that can be practised above the tide-

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way. Hang nets, feith nets, ring tails, and bob nets are the same things which you hear of in the Tweed and other rivers; they are forbidden by law, and have been put down in the Tay; they have been put down in the Tweed; they have been put down in the Spey, and every place where they have been challenged, so that it is only the wear shot that can be used in a river legally above the tide-way. In the tideway and on the coast the stell net is used (it is called the stell or still, signifying the same thing); the fish are then running with the current, and of course the net must be put into the water with its mouth opening the opposite way to what it would be when fishing wear shot; the net is precisely the same as the wear shot net, only it is put into the water the reverse way. On the sea coast there are bag nets, stake nets, and sole nets, and the net and coble in some places still, where the stake nets have not broken the fish into small numbers, so that the net and coble will not pay the expense of fishing.

423. Has the quantity of salmon sensibly decreased within the last few years in the rivers with which you are connected?

It is difficult to ascertain the increase or the decrease of any one particular fishing, because a very great change has recently taken place along the coast and in the neighbourhood of rivers by bag and stake nets. The only mode therefore of ascertaining it in a general point of view, is to ascertain what arrives now at market compared with what arrived before. Returns have been made up annually by the house of William Forbes Stuart & Company, and sent to each of their consignors yearly. I see them in the pamphlet which Mr. Jopp has put in. I receive the return every year from them at the end of the season, showing what salmon comes from Scotland, from Ireland, from Holland, from Norway, and from Wales; and what I see in Mr. Jopp's pamphlet is only what we receive annually from that house.

424. Are you satisfied that the table in Mr. Jopp's pamphlet is accurate?

Yes. I went to the gentleman at Billingsgate who takes the trouble of making it out, to ask him if there were any mistake about its being 112 lbs. to the box. He said there was no mistake about that; he was obliged to reduce them to that standard, because the fishers, for instance, on the Tay, since railway communication has been established, put in perhaps 170 lbs. in a box, while those coming from Ireland may put in a different quantity, and those coming from the north of Scotland, probably only 112 lbs.; and to bring it to a just conclusion he reduced the whole to cwts.

425. Have you taken the average quantity of salmon sent to the London market abstracted from this table, because it appears according to the table to fluctuate very much?

All fishings fluctuate; I hold fishings to be a cycle of nine years.

426. Taking the first and last quantities in Mr. Jopp's table, it would appear that the salmon sent to London have fallen off one-half; but that would be hardly a fair statement, inasmuch as in the year 1839 the quantity was 16,340 boxes, and in the year 1858 it was 21,564, showing an increase, therefore, it can hardly be fair to say that the quantity has fallen off one-half; would it not be desirable to divide it in periods of six or nine years, and ascertain what the average decrease has been?

I have not tried it; it is quite evident that there is a very large decrease.

427. Lord Stanley of Alderley.] To what do you attribute that large decrease? To over fishing.

428. To any particular mode of fishing, or generally?
Generally.

429. You have stated that in river fishings there was no mode of fishing which was legal except by the net and coble wear shot; do not you consider cruives legal where they have been long established?

Cruives are legal; there can be no cruives without having a charter; cruives form a sort of exception, and there are not cruives in every river; they cannot be in any river without having a Crown charter.

430. What you mean is that it would not be legal to establish a cruive where none had previously existed, but if they have existed under charter for a long period of years then you consider that they are legal?

Yes,

Yes, they are legal.

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431. Do you consider that the use of stake nets and bag nets is legal or illegal?

The courts of law have found them to be legal, because the house in which I am paid very heavily in 1828 for trying to suppress them as being illegal. The stake and bag nets having been found to be illegal in the rivers, the proprietors of the river fisheries in Aberdeenshire combined together, and tried the question as to their legality in the sea, and they were declared to be legal by the decision in 1828.

432. What distinction would you draw between the right to establish now for the first time a stake net or a bag net, and to establish a cruive where none had previously existed?

No one would be allowed to establish a cruive unless he had a charter for it; the upper heritors would prevent it.

433. You consider the law is that they may establish stake nets and bag nets where none have previously existed?

I am not a judge of the law, I can only speak as to facts.

434. Stake nets and bag nets have very much increased of late years, have they not?

They have very much increased.

435. Do you consider that the very general use to which they have come has been injurious to the salmon fishings in Scotland?

I can come to no other conclusion from the rapidly increasing scarcity of the fish.

436. Do you attribute that diminution of the supply to the existence of these bag and stake nets?

To over fishing by these bag and stake nets.

437. In what way do you think that bag and stake nets operate in diminishing the fishings in Scotland?

By over fishing, killing too many.

438. Do you think that bag and stake nets operate injuriously in any other way by deterring the salmon from ascending the rivers for which they are seeking when they come along the coast?

They catch them.

439. If they do not catch them, is it your opinion that those bag and stake nets deter the salmon from going up the rivers and drive them out to sea?

In clear water they will.

440. What becomes of those salmon that are so driven out to sea; do they pursue their course to the river by another route, or do you think they go out to sea?

I believe all salmon return to their own rivers; there is no question about that point, as every river's fish differs from its neighbours. Whether they may return or what accidents may occur before they return the second or third time after being turned out by these nets, it is impossible for me to give an opinion upon.

441. Do you think that the salmon are so deterred in their progress along the coast, and do not eventually find their way into the rivers the same as they would have done if they had not met with the obstacle of the bag and stake nets?

I believe on returning the second time they would be caught in the stake or bag net.

442. Do you think they would retrace their steps and again come to the stake net, or on coming from the sea a second time, would not they take a different circuit?

If the stake net is near the river's mouth, they would fall into the same trap again, and the stake net would kill them if the weather was rough, and the water was not very clear: but if it was a clear day, there being but little

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tide and the water was clear, the fish would turn from the stake net some 10 or 12 feet distance, and if the fish were in a shoal, they would not come close to the net, and it would not kill them; but the first rough day the shoal would be broken up, and the stake net or bag net would kill them.

443. *Barl Cawdor.*] Are you the proprietor of stake nets?

No. I am tacksman to a large extent of stake nets.

444. You have been practically engaged with them?

Yes; much more so than in river fishings.

445. *Lord Stanley of Alderley.*] Having been so long engaged in salmon fisheries, and having informed the Committee that, in your opinion, the supply of salmon has very much diminished, what course would you suggest to the Committee to recommend to Parliament to adopt for the purpose of improving the breed of salmon, and restoring the fisheries to their former flourishing condition.

I would return to the old method of fishing.

446. *Lord Stewart of Stewart's Court.*] With the net and coble?

Yes.

447. *Lord Stanley of Alderley.*] Would you propose to abolish all other modes of fishing?

They are not compatible with each other. You cannot have stake nets, and use the net and coble with advantage in the same neighbourhood.

448. Would you recommend that all stake nets and bag nets should be put down and made illegal?

I would recommend a return to what the fishing formerly was, with the net and coble.

449. And allow no other mode of fishing?

They cannot be practised together.

450. You would propose to abolish all modes of fishing, except by the net and coble, and, if I understand you rightly, by cruives, where they exist already by right, and of course, I suppose, rod fishing?

I do not allude to cruives, because I think that the proprietors of most of the cruives that I know might easily be convinced that they would gain more by the alteration that I suggest, than they would lose by taking away the cruives.

451. When you state to the Committee that you consider that the modes of taking fish by the net and coble, and by stake nets, are incompatible in the same locality, what do you mean the Committee to understand?

The fish make the land, if I may use the expression, singly, or nearly so, and the stake nets kill them as they arrive, or at all events prevent them from congregating into shoals; therefore, with a net of 150 fathoms in length, worked by 15 or 20 men, it will not pay them to haul three or four straggling fish on shore; they may lie half the day looking at a shoal out at sea, playing about, and they may get 200 or 300 at one haul, but unless the fish congregate into a shoal, the net and coble make no fishing that will pay the expense.

452. You think the habit of salmon is to make for the land singly, and not in shoals.

They make the coast singly, or in twos or threes.

453. *Lord Stewart of Stewart's Court.*] Have not you seen salmon coming round the coast?

I do not know what you call coming round the coast.

454. Have you seen them in deep water, coming round below your feet along the coast. I have, in Ireland, seen them from the top of the cliff, coming round the coast?

I have seen the fish on the coast.

455. You have stated that they come in singly?

I believe they do when they make the river's mouth, but the river not being in

in a state for the fish to swim at the time, they fall back and collect together; they are driven backwards and forwards with the tide or wind.

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456. Have you seen salmon come in in large shoals?

No, I have not seen them come in in large shoals. I believe the fish congregate together after they have come to the river's mouth; as they fall away from the river's mouth they congregate together.

457. Lord *Lovat*.] Are not the salmon lying about the mouth of the rivers in large shoals for some time after they arrive at the mouth of the river?

They arrive at the mouth of the river singly, or nearly so, and congregate there.

458. Lord *Stanley* of Alderley.] When you state that the habit of the fish is to arrive singly at the shore, and then congregate in large shoals at the mouth of the river, waiting for a fresh of water, or other circumstances, which will enable them to ascend the river, that is your opinion?

That is my opinion; when I say "singly," I do not mean single fish; they will come in twos and threes, or threes and fours.

459. What fishings do you at present hold, of which you are the lessee?

I am lessee of part of the Dee and Don, and fishings on that coast. I manage Lord Fife's fishings on the Deveron. I am lessee of the coast which lies between the Spey and the Deveron. I am proprietor and lessee of the bulk of the Findhorn fishings in the river and part of the coast there. I hold fishings in the Firth, both above and below Fort George. I hold fishings in Cromarty and in the Moray Firth, for about 20 miles below Cromarty. Then I hold several fishings near Thurso, and in the Bay of Thurso. I hold the Marquess of Stafford's fishings in Ross-shire; and also Sir Kenneth Mackenzie's fishings at Gairloch; and fishings in the Bay of Greinord.

460. Have you anything to do with the Spey fishings?

Not now.

461. *Chairman*.] Do you take these fishings for a long term?

Sometimes 14 years, and sometimes 15 years; very few salmon fishing leases in Scotland extend to 19 years.

462. Lord *Stanley* of Alderley.] Were you formerly lessee of the Spey fishings?

For a long time.

463. When did you cease to hold them?

In 1851 or 1852.

464. *Chairman*.] Have you renewed any of those leases of which you have spoken lately?

There are always some falling out.

465. Are you in consequence of the decrease of the salmon, giving lower rents than you did previously?

Some of the river fishings have diminished prodigiously in their rents, while sea fishings have increased. At the immense prices we are now receiving for salmon, half the quantity of salmon is equal to what it was before.

466. Lord *Stanley* of Alderley.] Is that increased price which is now given for salmon consequent upon the diminished supply, or the increased demand for it?

I believe both; one is the cause of the other, I should suppose.

467. It may so happen, in times of great wealth, that there are in the country more people desirous of consuming an article of luxury like salmon, and they may be willing to give a larger price for it, and therefore there will be more competitors than there were before, if the supply remains equal; do you consider that the supply generally has fallen off very much, or not?

I have stated already, that I believe this Table put in by Mr. Jopp to be perfectly correct, which speaks for itself, that the supply has much fallen off.

468. *Chairman*.] According to this Table, the price in 1834 and 1835 was very much what it is now; in the year 1834 it was 9½d., and it is now 10½d.?

It is now 1s. 0½d.

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469. Last

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469. Last year it was 1s. 0 $\frac{7}{8}$ d.?
In 1859 it was 1s. 0 $\frac{1}{4}$ d.

470. In 1858, you will find the price put down at 10 $\frac{1}{4}$ d.?

The way in which these prices are made up is hardly a criterion, taking the salmon and grilse together. If it was a good grilse fishing and a bad salmon fishing, the prices would not show a proper result, and *vice versa*.

471. That affects the price in 1834 and 1835 as much as the price in 1858 and 1859, does it not?

It does.

472. It would not appear by this Table that any great change of price has taken place in the last 25 years?

That depends entirely upon whether there were the most spring salmon or the most grilse in the year, when you average them together. It is a foolish way of making up a Table of that sort.

473. Lord Stanley of Alderley.] I think you stated, in answer to a question which has just been put to you, that the river fishings had fallen off and the sea fishings had increased; can you generally state, as the result of your experience, that you formerly paid a larger sum for the leases of river fishings than you do now?

Much more so.

474. In what way do you pay much more for sea fishings than you paid formerly?

Fishings that were not fished at all formerly now bring large sums of money.

475. Would you attribute the falling off in the river fishings to the increased take of fish in the sea, where formerly none were taken?

That certainly is the case.

476. Lord Colville of Culross.] When you gave up the Spey fishing, it had fallen off very much indeed, had it not?

Yes.

477. Did not you fish in the Spey with stake nets and bag nets, as well as by the net and coble?

The Spey fishing was fished by stake and bag nets altogether for three years.

478. Up to the time that you gave it up?

The last three years I held it.

479. When the Duke of Richmond took the Spey fishing into his own hands, did not he take those stake and bag nets off directly?

Yes.

480. Are you aware that since then the fishing in the Spey has increased in a most wonderful manner?

The Duke of Richmond stated so in his evidence.

481. Is it not a notorious fact that the Duke of Richmond's fishing in the Spey is very productive?

If you look at the year 1851, you will find that it was a most wretched fishing all over the kingdom; that was the year that I had to give the Spey up.

482. Do not you think that the taking off of the stake and bag nets has a great deal to do with the recovery of the fishing in the Spey?

It may. I do not know, because there was something wrong generally in that year.

483. Lord Stanley of Alderley.] Did not you state to the Committee that, in your opinion, the best mode of restoring the salmon fishing to its former prosperity would be to do away with all fixed engines, and to allow no mode of fishing, except by the net and coble?

I did.

484. Then it is your opinion that the existence of stake nets does injure the fishings in rivers?

I stated

I stated so, but if the stake nets and the river belong to the same man, he gets his fish either way.

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485. With regard to the practical effect of removing stake nets, you were asked the question whether the effect of taking off the stake nets in the Spey had not been to improve the fishing, which had diminished very greatly, when you gave it as your opinion that that is the cause of the improvement?

I do not think that was the cause of the improvement. The stake nets that were at the Spey's mouth were too few to have the effect that has been attributed to them; other rivers increased after 1851, as well as the Spey.

486. Do you attribute the falling off in that particular year to accidental circumstances, and the improvement to some other circumstances, of which you have no knowledge?

General circumstances, I attribute them both to.

487. Lord *Colville* of Culross.] Did you fish the Spey as high up as the Duke of Richmond does now?

Yes.

488. Have you the Sutherland fishings at present?

No. I have only bought the Sutherland fish; I never fished the Sutherland fishings on the Moray Firth side.

489. Laxford and Loch Inver?

Yes.

490. Did you give up the leases at the same time?

Yes, and for the same reason.

491. Lord *Stanley* of Alderley.] Are there any bag and stake nets in the Sutherland rivers?

They are without cruives, and without net and coble fishing. The rivers are let for angling.

492. What experience have you had of the Sutherland rivers?

I have known them for the last 25 years, either by fishing or having an establishment at the mouth of the rivers, and buying the fish.

493. Do you think the fishings in those rivers have been improved since the other modes of fishing have been put down?

I cannot answer that question, because it has been long fished as it is now; the river is free. I mean only fished by the rod.

494. Lord *Lovat*.] Were there not stake nets on the Sutherland coast, some years ago?

There were bag nets; the Sutherland coast is not calculated for stake nets, being rocky.

495. Did you get a great many fish in them at first?

Yes.

496. Then they fell off very much?

Yes. Other rivers fell off also; there was something wrong generally.

497. Lord *Colville* of Culross.] When you had the Spey fishings, were the cruives worked fairly, with a Saturday slap?

Yes, quite fair.

498. Have you any knowledge of the cruives in the Sutherland rivers; the Shin, for instance?

Yes.

499. Had you the Shin fishing?

No, I bought the fish; I had an establishment on the Shin.

500. Mr Young's?

Yes; he was overseer.

501. Were the Shin cruives altogether legal?

I have seen them not legal, and I have seen them legal.

502. Generally speaking, from your knowledge of the cruives in Scotland, are

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Mr. W. Hogarth. they fairly worked, and are they legally kept; is the Sunday slap properly observed, and are the bars according to law generally?

22d May 1860. Yes, they are; that one on the Deveron which I re-constructed, I can answer for being so. I must say that I did not find it so. Three years ago, a tenant had the fishing, and when I looked at the cruive I found it was not legal.

503. Has any upper heritor who has an interest in a fishing, if he imagines the cruives are not properly attended to, the right to go and inspect them?

He is never refused permission to do so whenever he chooses, nor were they on the Spey when I was there.

504. Are the water bailiffs permitted to inspect the cruives?

They have no water bailiffs at the fishing season. If there were watchers they were always welcome to do so.

505. Lord *Stanley* of Alderley.] Is that inspection of the cruives a matter of right, or is it a matter of permission?

I should think it is a matter of right.

506. Is it a matter of right on the part of the water bailiffs to see that the Sunday slap is observed, and a proper distance is kept between the bars of the cruive?

They are taken out on the Saturday, leaving an opening three feet wide.

507. Have not complaints been made at different times that methods have been adopted for the purpose of preventing the salmon getting up at that period?

I have heard various complaints, but I never found any of them founded in fact.

508. Lord *Colville* of Culross.] Were not gorse bushes put into the cruive?

So I have heard; perhaps a man's servants would put them in unknown to him.

509. Earl *Innes*.] What was the length of your weekly close time?

From sunset on Saturday night till sunrise on Monday morning; either that, or from six o'clock on Saturday evening till sunrise on Monday morning.

510. *Chairman*.] Do you send a great part of your salmon to London?

Nearly all, and to no other market. I preserve a few for the Indian market, hermetically sealed, but that is but trifling.

511. When did the use of bag nets become general on the coast of Scotland?

The decision in 1828 settled the point, and then they became general all over Scotland, though it took some time to increase them to the extent they are now.

512. When you attribute very much of the decrease in the quantity of salmon taken to the use of bag nets, how does it happen that in the years 1838 and 1839 there were only 15,000 or 16,000 boxes of salmon sent to London, whereas in the years 1857 and 1858 there were 18,000 and 21,000, showing rather an increase than a decrease?

You must take them on the average. I have stated already that I believe salmon fishings to work in a cycle of nine years.

513. Lord *Stanley* of Alderley.] Is it also the fact, that salmon are sent from many more rivers in Scotland than formerly sent salmon to London?

No; salmon from all the rivers in Scotland went to London formerly, either in the shape of pickled salmon or iced fish; but since we have had railways and steamboats, the salmon goes more in the shape of iced fish than it used to do.

514. Do not you think that there is a greater quantity of salmon sent up from Scotland to London than was sent formerly, on account of the increased facilities of communication that there are and the fewer consumers in Scotland than there were formerly?

That would be a mere bagatelle. All that Scotland consumes is a mere nothing.

515. *Chairman*.] Do you think the present close time sufficiently long in most of the rivers with which you are connected?

I approve of a general close time for the facilities of putting down poaching; and therefore, I would say that the 1st of September, taking it as a general measure, would suit all rivers, and the 1st of February. The 1st of September is
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four or five days too long for some of the rivers, and as much too short for others; *Mr. W. Hogarth.*
it is a sort of halving the difference.

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516. Lord *Colville* of Culross.] For net fishing?
Yes.

517. *Chairman.*] Do you think it would be expedient that a Board should be established for the purpose of fixing the close time, or varying the close time in each river according to its particular circumstances in certain limits; for instance, that the close time in one river should be the 1st of September, and in the next river the 25th of August, and so forth?

There are practical difficulties in the way. For example, the Ness and Beauly have totally different seasons. Then again there is the coast below. When would the coast fishing be stopped? Both north and south of Chanonry Point there are fishings where the salmon pass through a narrow neck up to the rivers. How would you regulate those rivers?

518. Are you aware that it is the practice in Ireland, and has been found to work very beneficially?

It may do where rivers are 20 miles distance from each other; but I cannot imagine that it would where rivers with varied seasons are falling into the sea close to each other.

519. Lord *Polwarth.*] Are the rivers Ness and Beauly of a different character?

The Ness and Beauly are totally different. The Ness has two seasons; one begins in December and January, and fishes well up to the end of April; and there are no more fish caught in it until the season when the Beauly is giving over, which is towards the end of July or the beginning of August, when the Ness begins to fish again, and fishes well to the middle of October.

520. Is not one river a deep river, and the other a shallow river?

They are totally different. The Ness comes out of a very large lake, and the fish are totally different.

521. Is the temperature of the water different?

Yes; that may be the cause why the fish are different.

522. One river you say is a deep river coming out of a large lake; is the other a comparatively shallow river running in various streams?

It is.

523. The temperature of the one coming out of the lake will necessarily be higher than that which is flowing over various streams?

That is so, but not as a general rule. I will give instances where that is not the case. The Thurso is as early a river as the Ness, and it is a small stream coming out of a very shallow lake.

524. Lord *Stanley* of Alderley.] Would not the fact of the Ness and Beauly, though situated close together, having very different times for the fish, be an argument against the establishment of one uniform close time all over the whole country?

It would be an argument to a certain extent; but how would you work the coast along with it?

525. No doubt there would be difficulty in arranging the times of the portion of the coast which would be attached to each particular river; but would not the best mode of doing it be to appoint some Board or Commission to take evidence upon the subject, and attach a certain portion of coast to each of those rivers; would not that be more likely to produce a satisfactory result than insisting upon a uniform close time, which must be unfair in some cases?

Those rivers are exceptions to the general rule; it would be damaging the general interest for the sake of one or two exceptions.

526. Still, as a general rule, would it not be desirable to have a Commission or Board to establish different periods in different rivers, and not to force them all to adopt one uniform close time?

I do not approve of a varied close time. In the Ness and Beauly, having regard

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to the position of the rivers, I do not see how you could allot various portions of the coast to those rivers; the fish pass through a narrow neck only of a mile wide at Fort George in going to both those rivers, which are so varied in their season.

527. The Ness and Beauly are rather peculiarly situated, and the difficulty of assigning a particular portion of the coast to each river is an argument in your mind against having a different close time for different rivers, because no Board or Commission could assign a proper portion of the coast to each; but as these are only peculiarly circumstanced rivers, would it not be desirable, with regard to all other rivers, to have separate times for the separate rivers where the salmon come at separate periods?

There are five salmon rivers falling into the Tain Firth, having different seasons, and two within two miles of each other on the coast of Aberdeen.

528. Lord *Polwarth*.] Lord Stanley asked you whether it would not be advisable, in your opinion, to have a Board to regulate the close of the fisheries in the different rivers, and not to make a uniform close time, but to fix whether, in the opinion of the Commission, one river should be shut on one day, and the next should be shut upon another, and not leave that to the discretion of the proprietors?

I would not leave it to the discretion of the proprietors, nor would I recommend that it should be left to local Boards. I say "No," therefore, to the question.

529. You were asked whether you would leave it to a Board to determine the close time of different rivers according to the circumstances of the case?

I think this Committee would be better to settle it at once.

530. If you disapprove of the appointment of a Board for such a purpose, how would you settle the close time for each of those rivers?

I would not have a varied close time.

531. Lord *Stanley* of Alderley.] If there is a uniform close time for all the rivers, and the different rivers have different periods, must not that uniform close time apply injuriously to one river or another?

It is to a very small extent; if you look at the Blue Book in 1836, you will find, I think, that the Tay is one of the early rivers; and after deducting the catching of the fish in the early part of the year, it gives a mere bagatelle; it is with regard to the facilities for poaching, mainly, that I would object to a varied close time.

532. Is not there a different close time in the Tweed from other rivers in Scotland?

Yes.

533. Is not there a different close time in the Annan?

That is a border river also; I believe there is. These are the only exceptions, because they are partly in England.

534. Lord *Polwarth*.] You have stated that you object to fixed nets, and that you think a new principle should be adapted to the use of fixed nets. Do you think improvements may be made upon fixed nets of different descriptions, so as to render them more destructive than they have hitherto been?

It is impossible to say what improvements may take place; I know they are too good as it is; they are killing too many fish, in my opinion.

535. Improvements have been made upon them, in your recollection, which render them more destructive than they were at first?

Yes; but those changes took place almost immediately after that decision in 1828, and I should say within three or four years of that time they became very nearly what they are now.

536. You do not think that fixed nets can be rendered more destructive than they are at present?

No; but they have increased immensely since 1828 in number.

537. Lord *Stanley* of Alderley.] Do you think the Sunday slap could be allowed in stake nets?

It could be done, but I do not think it would be of any use.

538. Would

538. Would not it allow the salmon during that period to get through the stake nets without being stopped? *Mr. W. Hogarth.*

You could not remove the land arm of the stake net passing to the shore where it is a fixture, but if you were to allow them to pass through the head of the stake net, the bag net outside would be the first to get hold of them.

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539. Might not you prevent bag nets being set during that period?

You must take them out. I think there must be an entire removal for the Saturday slap to make it effective; a stake net may be got at to make a kind of slap in it, because it dries at low water; but if the water is at all rough, the people having an interest in the bag net would not be likely to go off to it for that purpose.

540. Do not you think it is prejudicial and unfair to the river proprietors to prohibit their taking salmon during the period of the Saturday slap, while the possessors of bag nets and stake nets can take salmon during all that period?

I cannot defend the principle.

541. *Chairman.*] Looking at the fecundity of salmon, do not you think, if the close time were extended, that a sufficient number of breeding fish would ascend the rivers to produce a supply much larger than any that has hitherto been obtained from the Scotch fisheries by means of bag nets, stake nets, and any other fixed engines?

I do not think so; because when comparing one river with another, I find that a river produces fish in proportion to its capabilities for spawning. The Ness, one of the largest rivers in Scotland, never produced many fish; and when you come to look at it, it is a string of lakes, or deep rocky pools, and there are no great facilities for spawning; while in a small river close by, there are a great many fish; and if you look at its nature, you will find that it is capable of a great many fish spawning in it.

542. In the "Natural History of Salmon" it is stated that each breeding fish contains from 17,000 to 20,000 ova?

Yes.

543. If a sufficient number of breeding fish were allowed to ascend a river, would it not have the effect which I have supposed of increasing the supply?

No; because they may go where there are no facilities for them to spawn. I have seen them in the Deveron digging each other's beds up.

544. Are salmon in the habit of ascending rivers in which there are no facilities for the deposit of their ova?

There may be more salmon than have beds to spawn upon; they can only spawn in certain localities. They must have shingle, and they must have a current.

545. *Lord Stanley of Alderley.*] When you say that you have seen the salmon destroying one another's beds, do you mean to convey to the Committee that salmon are pugnacious fish; and that if they have not a sufficient quantity of ground to spawn upon, they will take possession of the beds of other fish?

No; they spawn at different times. The fish that first ascend the rivers will spawn a month or six weeks before those that come up afterwards; and those that come afterwards, when they find no other ground, begin to work where the others have been working before, and of course they are undoing a great part of what the others have done.

546. *Earl Ducie.*] Have not the proprietors of the Scotch rivers made artificial ground for the fish by widening shallows, or anything of that sort?

Not that I am aware of.

547. *Lord Lovat.*] The first fish would go highest up the river?

Yes, and they spawn first.

548. Those fish that turn out the beds of the others are those that come up late, and have not had water to go up higher?

I do not think they attempt to go up high if they come in late, when they are heavy in roe.

549. Do you think an earlier close time would be a good thing, so as to allow fish to get higher up the rivers?

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An early close time is important, for the purpose of allowing a larger number of fish to go up and spawn.

550. Earl *Cawdor*.] Supposing all the fixed engines in the river are taken away, there would still exist in many rivers natural obstacles to prevent the fish ascending; do you think it desirable that anything should be done upon that subject?

I believe the law of Scotland orders all millowners to have a salmon slap.

551. I am speaking of natural obstacles?

It would be of consequence to have natural obstacles removed, if there is any spawning ground above.

552. Where a proprietor has an impediment of this sort situated upon his property, and will not do anything, do you think there should be any power of interfering with him so as to compel him to make a free passage for the fish?

I think a proprietor would naturally do it himself, if he thought it would pay him.

553. Are you acquainted with Findhorn?

I am.

554. Are there several very formidable obstacles to the ascent of fish after they have got to a certain point in that river?

I only know of one, that is below Belugas; and the fish pass easily over it after the month of March.

555. Do you think that there should be any power in the upper heritors to enable them to obtain facilities for the fish to ascend over such natural obstacles?

The fish pass freely over the one I have mentioned in the month of March.

556. Not except in a very high flood?

Yes.

557. Lord *Stanley* of Alderley.] Are there some rivers in which insuperable obstacles to the passage of the fish exist at present which might be removed by blasting or otherwise?

Yes.

558. Earl *Cawdor*.] Are you aware that they have made in Ireland what they call "ladders" for the ascent of the salmon?

Yes; it has been done in Scotland before; it is well known.

559. Lord *Stanley* of Alderley.] Where has it been done in Scotland?

At Deanston.

560. Lord *Colville* of Culross.] Do not you think that salmon are much deterred from ascending many rivers by the improper construction of dam dykes?

I thought I had answered the question; yes.

561. These dykes might legally be put in proper order, I suppose?

Quite easily, only there is an inducement to the millowners to shut them up as soon as they can. The millowners are a distinct body from the upper heritors. When the millowners go too far, then the dams are put right again, and put wrong as soon as matters get quiet.

562. *Chairman*.] You have informed the Committee when the close time, in your opinion, ought to begin; did you mention when it ought to end?

The 1st of February is long enough, I think; I speak in a mercantile point of view. Fish caught before that time will not bear the expense of catching them, in nine cases out of ten.

563. You think no fish would be caught which had not spawned after the 1st of February?

Plenty of fish have not spawned after the 1st of February.

564. Would not that be a reason for making the end of the close season somewhat later?

Then you would seriously trench upon the value of the proprietors' fishings; they need not kill those fish; it is only low down in the river that salmon are to be found at that time of the year unspawned. I saw 200 salmon, at least, taken out

out of a pool in Duff House grounds last year, on the 1st of February, unspawned; and they were put carefully over the cruive dyke, that they might go upwards.

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565. Lord *Lovat*.] Has the Findhorn fishing fallen off much the last 10 or 12 years?

It has been very bad the last two or three years.

566. Have there been any stake and bag nets in the rivers which you have mentioned, latterly?

They are surrounded by stake and bag nets, particularly the Findhorn.

567. Lord *Stanley* of Alderley.] I believe there are no bag nets in the Tay?

It was upon the decision of the Tay case that the Aberdeen proprietors attacked the bag and stake nets on the coast, in 1828.

568. No stake nets have been erected in the Tay since that period?

No.

569. Do you know whether the Tay fishings have kept up to their former rate?

I cannot answer that question.

570. At any rate in the Tay, neither bag nets nor stake nets have come into operation to affect the fishings?

There are none inside the bar.

571. *Chairman*.] Have you any further information to give the Committee, or suggestions to offer, with respect to amendments of the law?

I think I have nothing more to say than what I have stated already. I should like to see the close time lengthened. I would like to see things restored to what they once were. To restore the salmon fishings to what they used to be, no fishing should be allowed except by net and coble, as formerly.

The Witness is directed to withdraw.

MR. ALEXANDER ADAM is called in, and examined.

572. *Chairman*.] DO you reside in Aberdeen?

Mr. A. Adam.

Yes.

573. Have you been connected with salmon fishings for a considerable number of years?

About 30 years.

574. Are you at present connected with the Aberdeen Fishing Company?

Yes.

575. You have had, of course, considerable experience in salmon fisheries; what is your opinion of the present state of the salmon fisheries in the rivers with which you are connected?

It is not an opinion; it is a matter of fact that the produce has decreased.

576. Is the quantity of salmon taken now very much decreasing?

Very much.

577. To what cause do you attribute the decrease?

I attribute the main cause to the unlimited number of bag and stake nets upon the coast; there are other causes, but that is the main one.

578. Can you give the Committee any notion of the number of bag nets and stake nets on the sea coast immediately adjoining the mouth of the rivers to which you refer?

Upon the Raik fishings, which extend along the coast about a mile and a quarter, there are 12 bag and stake nets; and upon the Nether Don, which is about two miles in extent, from 20 to 25.

579. There is no Saturday slap, I think, in the case of bag and stake nets?

No; and I do not consider that it is possible to have a Saturday slap in the

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case of either bag or stake nets; it might be done with stake nets, but still the obstruction is there; but with bag nets I am satisfied that it is impracticable.

580. Are there any other causes in operation which produce a decrease in the quantity of fish taken?

Yes. I am not satisfied with the present close time.

581. What alteration in that respect would you recommend?
I think we fish too long.

582. When, in your opinion, ought the close season to begin?
I think that we should not fish a day after the 26th of August.

583. When, in your opinion, ought the close season to end?

I do not think that the harm would be very much, if any, if the fishing should be stopped about 20 days earlier, and the days so cut off from the end of the present season were transferred to the beginning of it. If those 20 days were put at the beginning of the fishing, I do not think the damage would be much, if any, to spawning fish.

584. But a great number of the fish have not spawned before the 1st of February, have they?

It is very seldom that I have seen a fish spawn in our rivers after the beginning of February.

585. Earl *Innes*.] Do you consider that, by fishing a river late, you render the fish in that river late?

Yes, there is no doubt of that.

586. By obstructing the fish?

Of course you keep the salmon back the longer before they get to the spawning beds. I am also of opinion, indeed I am certain, that cruipe dykes and mill-dam dykes should, if not taken away altogether, be very much restricted from encompassing the water, so that the fish could get up to the spawning beds. In the river Don there are cruives, and I visit them very frequently, two or three times in the week sometimes; and I have seen hundreds of salmon lying at the back of the cruipe dyke, though the boxes were removed; the fish had become so heavy with spawn that they could not get through; the rush coming from the upper waters, where the boxes are placed, is so strong, and the fish are so full of spawn, that either they cannot, or will not, go up; whereas if there were some part of the dyke removed, so that they could get up to the spawning beds, much more of the spawn would become productive than at present. I do not think one in 10,000 of their ova comes to perfection in that place.

587. Lord *Colville* of Culross.] Does not the same observation apply with respect to mill-dam dykes, which are also very obstructive to the salmon?

Yes.

588. *Chairman*.] You think it is very desirable that all fixed engines should be removed in rivers, as well as on the sea coast?

Yes.

589. I believe there is some difference in rivers, as to the time at which the close season should begin; do you think it desirable that a board or commission should be appointed, having powers to vary, within certain limits, the commencement and end of the close season?

There are some rivers a little later than others, but really I am of opinion that it would be more satisfactory to have one general close time than a varying close time, because we should be annoyed with poaching.

590. Lord *Lovat*.] Is there much difference between the Dee and the Don, as to the spawning time?

There is a difference; the Don is a later river than the Dee, but it is very little.

591. How much later?

I should say, probably eight days, but still I think the 26th of August would be long enough for the Don.

592. Lord *Stanley* of Alderley.] Do you think there would be any objection if
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a longer period were given for rod fishing, after the rivers were closed for other fishing?

No, I do not think there would be any objection.

593. Lord *Colville* of Culross.] Would you say the end of September for rod fishing?

I think that would be very right; the upper heritors really have no interest to preserve the fish when they get up. Of course the lower heritors fish the rivers as close as they can, and few escape for the upper proprietors. I think, after the nets have been removed, the upper proprietors should be allowed some time to fish with the rod.

594. Lord *Stanley* of Alderley.] You do not think that any inconvenience would result from an extension of the time for rod fishing, such as you anticipate, from there being different close times in different rivers, making poaching more easy, and more difficult to detect?

No; supposing a gentleman did fish, you would not expect that the fish would be sold.

595. And the quantity would be small?

That is my opinion.

596. Lord *Stewart* of Stewart's Court.] Are not spawning fish, in some cases, destroyed by the people up the country, or even by gentlemen calling themselves sportsmen?

There might be a little of that; but I would not be so much afraid of them as of characters who are going out poaching for the sake of gain. I have gone out many a night to the Don, because I knew poachers were about, when it was no part of my duty, but just to try to put down poaching. I knew there were so many fish lying at the back of the cruive dyke on the Don, that a great many would be taken out.

597. Do not they leister them by torchlight?

We should soon detect that; the light would attract the bailiffs.

598. Do not gentlemen leister the fish?

I do not suppose a gentleman would do that.

599. Lord *Colville* of Culross.] Do you fish with nets up to the 14th of September?

We do; but I advised our Company, three or four years ago, to give up the net and coble fishing in the river on the 17th of August.

600. Are you aware that the Duke of Richmond takes his nets off on the 24th of August?

I should say that was quite right. I not only advised the Company, but I showed them figures to prove that they should do so. They would have been quite willing to have removed the nets and cobbles in the river, if other people had done it. I said to them it was no matter to me, but I would not prosecute a thing that was not paying; it did not half pay the expenses.

601. Lord *Stanley* of Alderley.] The quantity of fish taken did not pay the expenses of the men's time?

No; I have a return here showing the different fishings that I am connected with, and showing that the river fishings do not pay after 14th August, and the sea fishings leave a very large profit at that time when the fish are in a forward condition to spawn.

602. *Chairman*.] Is that return prepared by yourself?

Yes.

603. And of course you vouch for its accuracy?

I do.

604. Do you wish to put that return in evidence?

Yes.

The same is delivered in, and is as follows:

STATE of the Produce of SALMON FISHINGS on the *Dee* and *Don* from 14 August to 14 September,
for each of the Years from 1853 to 1859 inclusive.

RAIK SEA FISHING.

YEAR.	Salmon.		Grilsea.		Trouta.		TOTAL.	Average Price.	Amount.	Fishermen's Wages only.	Profit or Loss.
	Number.	Lbs.	Number.	Lbs.	Number.	Lbs.	Lbs.	s. d.	£. s. d.	£. s. d.	£. s. d.
1853 -	222	3,714	684	2,660	47	96	6,470	- 10	269 11 8		
1854 -	387	6,384	473	2,817	7	16	9,217	- 9½	355 4 9½		
1855 -	600	9,622	1,109	6,748	18	44	16,409	- 11½	777 14 4½		
1856 -	461	8,376	1,046	6,468	31	63	14,907	1 -½	753 2 3½		
1857 -	275	4,230	614	2,644	103	120	6,994	- 11½	324 4 -½		
1858 -	675	10,116	881	3,459	199	428	14,003	- 10½	612 12 7½		
1859 -	97	1,367	146	562	58	131	1,960	1 -½	105 2 11		
	—	43,709	-	25,353	-	898	69,960	- -	3,197 12 7½		
7 Years' Average - -							9,994½	- -	456 16 1	39 2 -	Profit. 417 14 1

RAIK RIVER FISHING.

1853 -	7	106	61	296	18	26	429	- 10	17 16 8		
1854 -	5	88	19	62	14	15	160	- 9½	6 3 4		
1855 -	14	200	49	202	22	26	428	- 11½	20 5 8½		
1856 -	10	148	22	103	7	7	258	1 -½	13 - 8½		
1857 -	6	98	53	156	56	60	314	- 11½	14 11 1½		
1858 -	11	152	58	130	68	98	330	- 10½	16 12 6		
1859 -	-	-	6	12	20	23	35	1 -½	1 17 6½		
	—	787	-	961	-	255	2,003	- -	90 7 6½		
7 Years' Average - -							286½	- -	12 18 2½	23 10 -	Loss. 10 11 9½

POT FORDS AND MIDCHINGLE FISHINGS.

1853 -	9	137	71	322	6	9	468	- 10	19 10 -		
1854 -	12	192	35	161	-	-	353	- 9½	13 12 1½		
1855 -	14	234	72	345	-	-	579	- 11½	27 8 10		
1856 -	4	57	22	99	-	-	156	1 -½	7 17 7½		
1857 -	19	347	43	165	2	5	517	- 11½	23 19 3½		
1858 -	49	755	96	306	52	68	1,129	- 10½	49 7 10½		
1859 -	-	-	4	9	5	5	14	1 -½	- 15 -		
	—	1,722	-	1,407	-	87	3,216	- -	142 10 8½		
7 Years' Average - -							459½	- -	20 7 3	35 10 9	Loss. 15 3 6

NETHER DON FISHING, SEA AND RIVER.

1853 -	382	6,162	983	5,483	54	147	11,792	- 10	491 6 8		
1854 -	701	11,580	887	5,509	19	46	17,085	- 9½	658 9 8½		
1855 -	552	10,546	1,246	7,721	16	35	18,302	- 11½	867 8 9½		
1856 -	449	7,973	1,074	6,429	23	52	14,454	1 -½	730 4 6½		
1857 -	322	4,936	647	2,851	102	136	7,923	- 11½	367 5 3½		
1858 -	588	8,724	846	3,367	105	204	12,295	- 10½	537 18 1½		
1859 -	204	2,788	301	1,163	36	80	4,031	1 -½	216 4 11		
	—	52,659	-	32,523	-	700	85,882	- -	3,868 18 -		
7 Years' Average - -							12,268½	- -	552 14 -	73 5 8	Profit. 479 8 4

STATE of the Produce of Salmon Fishings on the *Dee* and *Dan*, &c.—*continued*.

CRUIVES FISHING.

YEAR.	Salmon.		Grilse.		Trouts.		TOTAL.	Average Price per lb.	Amount.	Fishermen's Wages.	Profit or Loss.
	Number.	Lbs.	Number.	Lbs.	Number.	Lbs.	Lbs.	s. d.	£. s. d.	£. s. d.	£. s. d.
1853 -	18	265	163	691	59	124	1,080	- 10	45 - -		
1854 -	-	-	19	75	-	-	75	- 9½	2 17 9½		
1855 -	9	147	54	268	5	7	422	- 11½	20 - -½		
1856 -	10	77	40	163	3	4	243	1 -½	12 5 6½		
1857 -	20	311	106	405	84	106	822	- 11½	38 2 -½		
1858 -	7	66	12	23	12	16	105	- 10½	4 11 10½		
1859 -	-	-	11	30	-	-	30	1 -½	1 12 2½		
	--	866	-	1,654	-	257	2,777	- -	124 9 6		
7 Years' Average - -							396 ¼	- -	17 15 8	10 12 -	Profit. 7 8 8

Note.—The Fishermen's wages and barrel-money only are reckoned against the above produce. There is nothing for tear and wear of material, or other expenses.

605. Lord *Stewart* of *Stewart's Court*] I think it is admitted, that on account of these stake nets and other fixed engines, the fish do not come up the river in so great a proportion as they did formerly, so that the upper heritors are deprived of what they consider their fair share of the fish. Do you think that the fish are coming now to the mouths of the rivers in as large a quantity as they did in the year 1829, for instance?

No, they are not coming in the same quantity.

606. Irrespective of the up rivers altogether, you think they are not coming to the mouths of the rivers in the same quantities as they did formerly?

No they are not.

607. Lord *Colville* of *Culross*.] Do you think it would be possible to have a Sunday slap in stake nets and bag nets as well as in cruives?

No, it is not possible?

608. Lord *Stewart* of *Stewart's Court*.] Are you aware whether the size of the fish has diminished?

I am quite aware of it, and before I had seen it reduced to figures, I knew it to be so. When I was a boy we used to get fish of 30 lbs., but now such a thing would be very rare to be seen; and I know that the grilse are also very much diminished in size, taking them in the aggregate; you might see some grilse as good as they were at that time, but it is the exception.

609. Lord *Colville* of *Culross*.] Is it not the fact that the average weight of the grilse used to be seven or eight pounds, and that they have now got down to four or five pounds.

That was on the west coast; we never had them so large on the east coast as they had on the west coast.

610. *Chairman*.] Within what distance of the mouth of the rivers would you prohibit the use of stake and bag nets?

My opinion is, that they should be done away with altogether.

611. Lord *Stewart* of *Stewart's Court*.] Are you prepared to give an opinion as to the destructiveness of stake and bag nets to salmon irrespective of what are taken by them, with regard to their preventing fish from coming up the river, whereby the fish fall a prey to porpoises and to seals, or other animals?

I know that no seal will take a salmon if it is not interrupted or inclosed, but when they are confined in the bag or stake nets, we frequently get our nets destroyed by a seal going after them; but I do not believe that a seal will take a fish if it is in the open sea.

Mr. A. Adam.
22d May 1860.

612. You conceive that a stake or bag net would be an impediment to the fish getting away, and that they might consequently fall a prey to a porpoise or a seal?

Yes.

613. Lord *Stanley* of Alderley.] Do you mean to say that the seal comes and robs the net?

Yes.

614. Breaking through the net itself?

Yes.

615. Lord *Stewart* of Stewart's Court.] Do you believe that the substances which come into the rivers with which you are connected, from paper mills and other manufactories, have diminished the amount of fish, or have done any harm?

I do not think that it would be very material. I could not say that I have ever seen any salmon dead by that means.

616. In short, your opinion is, that the whole system of fixed engines for the destruction of salmon should be got rid of before we can hope to have a fair supply of fish?

Yes, to bring them back to their wonted prosperity.

617. And an alteration in close time?

Yes.

618. Lord *Colville* of Culross.] You have only given evidence with regard to the Dec and the Don?

And the sea coast thereabouts.

619. About Stonehaven?

Yes; I might mention to the Committee that in coming up on Saturday, I saw no less than four of these engines set up upon each other's ends, I think off the lands of Easter Muchalls.

620. Lord *Lovat*.] Have you any idea of the value of those fixed engines about Stonehaven?

No; I never had a fishing myself.

621. Lord *Stanley* of Alderley.] To whom do the bag nets in that part of the coast belong?

There are none of them chartered fishings.

622. Do they belong to the neighbouring proprietors?

To the neighbouring proprietors.

623. Without any charter or lease from the Crown?

They have not got leases, except for the two years that they were allowed to fish. The Commissioners of Woods and Forests granted letters for that time. I saw some of their letters.

624. You mean that they have only an agreement for a lease, or permission from the Woods and Forests to authorise them to fish?

They have no lease.

625. A lease from the Crown would give them the same privilege, would it not?

The Commissioners specified that it was for two years.

626. Lord *Colville* of Culross.] What is the value of a bag net?

A bag net costs from 12 l. to 16 l., without anchors.

627. A stake net does not cost so much, does it?

Not quite so much; they do not require anchors for it.

628. Lord *Stanley* of Alderley.] What is the cost of putting down a stake net?

It would cost about 14 l.

629. Lord *Lovat*.] Does not the cost of a stake net depend very much upon its size?

Yes; on our fishings we generally have them from 40 to 45 fathoms in length;

length; and in some places where there is a long, sloping beach, they have to be put in with a much longer leader than that.

Mr. A. Adam.

22d May 1860,

630. Lord *Colville* of Culross.] Do you suppose that those numerous bag nets to which you have referred are remunerative?

I do not doubt that they are to some extent, but I think very soon they will not be remunerative. I think that time is not very far distant.

631. Are the persons using these bag nets complaining that they are not remunerative?

Yes; one person confessed to me not a fortnight ago, that he was not getting a third of the fish with double the nets that he had upon the same place.

632. Lord *Stanley* of Alderley.] Are the bag and stake nets frequently carried away in foul weather?

Very often; we have had two carried away from our fishings this year. One was landed at Montrose; it was got out of the sea by fishermen; we had to pay salvage, and then bring it home by rail; the other was got, but not so far south.

633. Are other fish besides salmon caught in bag nets?

I have seen good shots of saiths.

634. Lord *Loval*.] Have the fish fallen off generally in the stake nets year by year?

Yes.

635. *Chairman*.] Have you any other information to give, or suggestion to make to the Committee?

I have prepared a paper showing the quantity of rebate or injured fish caught in the bag and stake nets.

The same is delivered in:

STATE showing the Quantity of Rebate Fish caught on the Raik Sea Fishing from 1846 to 1859 inclusive, being 14 Years.

	Salmon.		Grilises.		Trouts.	
	Number.	Lbs.	Number.	Lbs.	Number.	Lbs.
1846 - -	378	4,052	242	721	8	3
1847 - -	238	2,429	561	1,809	99	158
1848 - -	133	1,525	341	1,111	56	90
1849 - -	236	2,472	717	2,722	52	101
1850 - -	322	3,343	468	1,230	127	172
1851 - -	184	1,962	353	1,053	149	176
1852 - -	203	1,780	622	1,566	76	93
1853 - -	101	936	230	705	33	42
1854 - -	246	2,364	163	650	37	43
1855 - -	322	2,722	181	519	2	3
1856 - -	272	2,561	140	516	6	16
1857 - -	133	1,321	131	407	13	13
1858 - -	387	3,157	73	166	—	—
1859 - -	165	1,196	12	38	—	—
	3,320	31,820	4,234	13,213	753	910 = 105 Barrels, 163 Lbs.

Note.—The total quantity of fish caught at the Raik Sea Fishing during the above period was 2,367½ barrels; of this quantity, 105½ barrels, as shown above, were rebate or injured fish.

636. Lord *Stanley* of Alderley.] Are those fish that are injured in the nets?

Yes. Sometimes fish are caught during a storm, and it is impossible to go out to the net for several days; I have frequently seen times when we could not approach the net for any purpose; and in the storm it is all bundled together.

637. The fish are dead, and knocked to pieces in the net?

Yes.

638. Earl *Ducie*.] Your object is to show the amount of fish wasted?

Yes; and even this statement does not show all.

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639. *Chairman*.]

Mr. A. Adam.

22d May 1860.

639. *Chairman.*] The paper which you have given in refers to the injured fish taken in the nets of the company of which you are manager?

Yes.

640. How many nets have your company?

Twelve. This is the smallest mesh we use (*producing a piece of net*); there are some smaller than this used, and I think that there should be some regulation with regard to the nets.

641. *Earl Innes.*] What size mesh is that?

We call it three inches.

642. *Chairman.*] Does your company take a larger quantity of salmon in its sea-coast fishery, or its river fishery?

Much the largest in the sea-coast.

643. Do you consider that the fish taken in the bag and stake nets on the sea-coast are of a better quality than those taken in the river?

No, I do not. Of course it would depend upon whether the fish lie for any length of time in the river. In the first seven miles up the Dee, the fish are as good as any fish caught in the sea.

644. Does not the fresh water deteriorate salmon rapidly?

Yes, after eight days.

645. *Earl Ducie.*] By the time the fish have been eight days in the river, have not they got above the parts of the river where any netting is carried on to any great extent?

Yes.

646. *Lord Colville of Culross.*] The probability is, that any fish that you catch within six miles of fresh water is merely a passing fish; the fish does not rest till it gets further up?

No. Of course there are times when the stream is running pretty straight out of the bag nets, and they do not catch the fish so readily, and the fish go up the river. We have a fishing which is termed the "Tide Shot," and one further up about two miles; both those fishings will fish well the same day, so that the fish are not any time in getting up.

647. *Lord Stewart of Stewart's Court.*] Are the Committee to understand that you, being concerned in stake nets and nets of that description at the mouth of the River Don and the River Dee, would be favourable to the abolition of stake and bag nets altogether?

I have no interest in them; I am only here to tell the truth.

648. You are of opinion that it would be advantageous for your company, as well as for the upper heritors of the river, if the whole system of fixed engines could be done away with altogether?

Yes. I am speaking as to perpetuating the species of salmon; I do not care about it personally.

649. *Lord Stanley of Alderley.*] If those fixed engines were done away with, would there be a larger quantity of salmon caught in the rivers in Scotland, in your opinion?

Yes.

650. *Lord Lovat.*] And a larger supply of fish for the market?

I would not be prepared to say that for the first year or two there would be a larger supply, but ultimately there would; they have been over-fished; and hence the cause of the grilse and salmon having deteriorated in weight.

651. *Lord Stewart of Stewart's Court.*] Do you think the abolition of fixed engines would be an advantage, both to the proprietors of the fishings in the sea, or at the mouths of the rivers, as well as to the upper heritors of the river?

I do.

652. *Lord Lovat.*] Could fishings be carried on with the net and coble in the sea in many parts?

Yes.

653. *Chairman.*]

653. *Chairman.*] Are your Company's sea coast fisheries held under leases?
I really cannot answer that; I do not know anything about the leases.

Mr. A. Adam.

22d May 1860.

654. You think that the abolition of stake nets and bag nets would produce such an increased quantity of fish in the river, that it would more than compensate you for the loss of these sea-coast fisheries?

I believe it would.

655. Are your company willing to give up their sea-coast fisheries in consideration of the general abolition of stake and bag nets, and all fixed engines?

I could not say what their opinion is; I have not spoken to any of them about it. I know that our company represents five-sixths of the cruives on the Don, and I am here prepared to say that I would have them abolished.

656. That is irrespective of the interests of your company?

Yes; they have no doubt a charter for the cruives. I cannot say whether they would look for compensation, or anything like that. I hold the cruives to be a nuisance in regard to the destruction of the ova of the fish.

657. When you speak of compensation, how do you propose that such compensation shall be provided?

I do not know; but I think, if I were a proprietor of any cruives, and the abolition of bag and stake nets in the sea were to take place, I should take my chance, and clear out the whole of my dykes, and trust to fishing.

658. With a net and coble?

Yes, I would.

659. *Earl Innes.*] Would you recommend some regulations to be introduced with regard to the size of the meshes of the net?

Yes.

660. What size would you propose?

That no part of the net should be under three inches. There is a part of the net much wider towards the two ends of the net; the narrow part is in the bosom, in the centre.

661. Would you make the centre part of the net of the same size as the ends?

No; let them have the ends of the net as wide as they like; but they should not have them narrower than three inches.

662. What size fish would that take?

It would take a 2 lb. fish.

663. Do not you think it would be advisable for a certain proportion of fish of that size to escape, so as to deposit their spawn in the river?

It is a matter of opinion. Of course it would be better for the upper heritors, as it would give them more sport. I do not think they would lose such a great deal; but still there is no regulation about it, and people will not, as you may say, give an inch; they will take everything. And then they draw out a great deal of smolts, going down; after they are drawn out, I believe they are carefully put in, yet they are injured.

664. Would not a net, with an inch mesh in the bosom of it, kill the smolts?

It would draw them out.

665. Those that are drawn out are lying one over another, and a great many are destroyed?

I do not know that they are destroyed; the fishers are very careful in putting them back, but, of course, they are the worse for being drawn out. There is also a species of fixed nets, called feath nets, of which this is a specimen (*producing a piece of net*). We do not use them in the Dee at all, but they are numerous in the Don, and I think that they should be done away with.

666. *Earl Cawdor.*] Is the feath or hang net drawn in the river?

No, it is set out from the point of a rock; the fish go into it, and hang by the gills.

667. *Chairman.*] Have you any other statement to make to the Committee?

There is an idea among some parties of salmon breeding in the sea; and I

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Mr. A. Adam. have experimented upon it in a small way, as I was a little interested in New Zealand. I have tried several experiments to get salmon out there, and they always failed in hatching ova in salt water, although I have never failed in hatching the ova in fresh water, so that my opinion is that they do not spawn in the sea.

22d May 1860.

668. *Earl Ducie.*] Do you think anybody ever seriously entertained that idea? In our quarter a number of sea fishers hold that opinion very strongly.

The Witness is directed to withdraw.

Adjourned to Tuesday, the Fifth of June, at One o'clock.

Die Martis, 5^o Junii 1860.

LORDS PRESENT:

Duke of RICHMOND.
LORD STEWARD.
Earl CAWDOR.
Earl INNES.
Viscount HUTCHINSON.

Viscount EVERSLEY.
Lord COLVILLE of Culross.
Lord POLWARTH.
Lord LOVAT.
Lord WROTTESELEY.

THE LORD STEWARD in the Chair.

MR. ALEXANDER RUSSEL is called in; and examined.

Evidence on the
Salmon Fisheries
(Scotland).

669. *Chairman.*] I BELIEVE you reside at Edinburgh, and are the editor of the "Scotsman" newspaper?

Mr. A. Russel.

Yes.

5th June 1860.

670. Have you devoted considerable attention to the subject of salmon fisheries in different parts of Scotland?

Yes; not scientifically; but I have observed the habits of the fish, and taken means to acquire facts about the history and statistics of the fisheries.

671. To what conclusion have you come with regard to the present state of the salmon fisheries in Scotland?

I consider them, generally, in a declining state; and that they have been so, allowing for variations in different districts, for the last 15 to 20 years.

672. You think that salmon fisheries are generally in a declining state?

Yes; excepting where proprietors have voluntarily suspended the present law.

673. To what cause do you attribute that general decline?

I attribute it mainly to two causes; the introduction of fixed machinery on the sea shore, and too late fishing in the autumn.

674. What amendment, in your opinion, does the present law require?

I think that the rivers generally should be closed earlier in the autumn, and I consider that the fixed machinery on the shores is injurious and unfair, and ought to be suppressed.

675. Do you include in that opinion the fixed engines higher up the rivers, above the tide way, such as cruive dykes, and other fixed engines?

I think cruives are the only fixed engines in rivers now, with the exception of a very few small stell nets. I should say that cruives stand in one respect in a different position from the fixed machinery on the shore, inasmuch as they are ancient and indubitably legal, and recognized by Acts of Parliament and otherwise. But I should also say that in any Act suppressing fixed machinery on the shore, it would not be unfair that the cruives should also be dealt with in the same way. My opinion is that the owners of the cruives would not be losers but gainers, because they would get so large a share of the general benefit.

676. *Duke of Richmond.*] You have mentioned "stell nets"; will you have the kindness to describe to the Committee what a stell net is?

A stell net is of very much the same material as a net and coble, but generally a shorter net. The difference is mainly in the working. The stell net is set out

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Mr. A. Russel.

5th June 1860.

out from some favourable point, and there is a man with a boat at the outer end. It is placed in the run of the fish as much as it can be placed. The man holds the end till a fish strikes, and then the net is pulled in. Stoll nets have to some extent the same effect as stake and bag nets; except for the few minutes when they are pulled out to take the fish from the net, they bar the passage of the fish; they not only catch a great number of fish, but their operation, like that of all fixed engines, is also to deter and disperse them.

677. The stoll net is fastened to the shore, is it not, or fastened to a pole at one end?

Yes; at Berwick, for instance, some used to be fastened to the pier.

678. *Chairman.*] The outer end is fastened to the boat?

The outer end is fastened to the boat; it is an ordinary drift net held across the course of the fish till the fish strikes, and then it is pulled out; of course the nature of the ground does not always permit them to have it right across the passage of the fish.

679. You conceive that the effect of bag and stake nets is not only to take a quantity of fish that would otherwise go up the rivers, but also to disperse the shoals as they enter the mouths of the rivers?

I think that is one of the main objections to them; besides what they catch, they are exceedingly destructive, by driving the fish out to sea, and scattering the shoal when the shoal comes in shore seeking the river. When the fish come in shore they form a sort of shoal—apparently, as far as you can see—and they strike the leader of the net; some follow the leader, and get into the chamber of the net; others fly back; and others get past the chamber and go out to sea. The destructiveness of these nets in this way has been very much increased of late years, by a device that has been fallen on of putting a bag net out to sea beyond the outer end of the stake net: first, they have a stake net out to extreme low-water; then they will fix sometimes many hundreds of yards of bag nets out beyond, making, perhaps, a mile of barrier. Those bag nets are not put there merely to catch the fish that would have gone outside the stake net, and so escape, but to catch the fish that strike the leader of the stake net, miss the chamber, and then go out to sea and try to coast along again, and they come on those bag nets and are caught there. One evil of driving them out to sea is, that those places where the nets are placed are the favourite hunting waters of the porpoises and seals; you see them near the mouth of the Tay, tumbling about in hundreds, waiting for the salmon that are sent out to sea off the shallows by striking those nets. There is also another objection to the use of stake and bag nets; as nearly as I could make out, after inquiry as to a great number of fisheries, I would say that, at the very lowest calculation, you must kill two fish in those nets for one in river nets, in order to produce the same amount of profit after the expenses are paid. I may mention the case of Goswick, which happened to be minutely inquired into for another purpose in connexion with the Tweed Bill: I have visited the place, and seen the figures, and it comes to this, that somewhere about four times the quantity of fish is required to be killed there to produce the same rent as a given number of fish would have produced in the rivers.

680. *Earl Caird.*] You mean that the stake and bag net is a more expensive mode of fishing than the net and coble?

Very much more expensive. On that fishery of Goswick (the owner gave in the tables himself), the take of adult salmon, on an average of years, was one fourth of the whole take in the River Tweed, and the rental of those stake nets was only between one-eighteenth and one-twentieth of the river fisheries.

681. *Lord Lovat.*] Are not a great number of salmon destroyed in the bag nets in rough weather, and rendered unfit for market?

I do not think they are rendered unfit for market; they are deteriorated in appearance. If the storm lasts for two or three days, they may be unfit for market; but a very small amount of sea will knock their scales off, so that they would not send them to a fishmonger such as Mr. Groves.

682. *Earl Innes.*] Can you give the Committee any idea of the expense of working stake and bag nets as compared with the expense of working a net and coble?

I should

I should say that it is about three or four times as much. I have heard cases where it is six times more expensive; and that expense arises, not from giving greater employment, or paying more money in wages; on the contrary, the amount paid in that way is much less on fixed nets than on river nets.

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683. *Chairman.*] Is what is called the Saturday or Sunday slap usually observed by the owners of stake and bag nets?

No.

684. Would it be possible to enforce the observance of the Saturday slap with respect to stake and bag nets?

It would be quite possible with stake nets, but there are occasions when it would be almost impossible with bag nets; and of course where there was a difficulty, and there was any doubt whether it could be done, the owner of the fishery would take the benefit of the doubt. The greater cost of the nets arises from the tear and wear of the material, and the laying down is also very expensive.

685. Is not more injury done to the fish by means of the bag and stake nets than by the net and coble?

Yes, if it is rough weather; but it is also true that the fish caught in the sea are always in somewhat better condition than the fish caught any length up the rivers at the same period, say, for instance, in July, when the fish deteriorate very rapidly on reaching the fresh water. No doubt the fish caught in sea nets are then in better condition; but it is to be considered that most of those fixed nets do not fish at all during the season when the fish are in the highest condition, and also are the most needed for the market. In February, March and April the salmon is in the very highest condition, and most of those stake and bag nets do not work at all then.

686. *Earl Innes.*] Does that arise from stormy weather?

Yes; and also because the fish are scarce; there is a less produce than there is in June and July.

687. *Chairman.*] Do you think the restriction of the use of stake and bag nets to the open sea coast and the prohibition to use them within a certain distance of the mouths of rivers would be a sufficient protection to the river fisheries?

I should very much doubt it. Circumstances vary so immensely in different localities, that it is impossible to give a general answer.

688. *Lord Lovat.*] Would not the limit vary very much according to the shape of the coast?

Yes, according to the shape of the coast, and also according to the amount of shallow water, and a great variety of circumstances.

689. Do the fish generally follow the coast?

They follow the coast for a very long time before they enter the rivers.

690. *Earl Cawdor.*] How has it been ascertained that the fish follow the coast?

They are seen to some extent, and they are caught in those nets which are placed along the coast; such a thing as a salmon being caught even a mile or two miles out, by herring nets for instance, is almost unknown.

691. Do herring nets catch many other species of fish besides herrings?

They get a number of small fish, not very great quantities; but the fact that a salmon is never caught out at sea is pretty well ascertained. There are many nets used, not only the herring nets, but other nets, and I scarcely ever knew a case of a salmon being caught in them. There is a Scotch Act which recognizes the fact, making a prohibition against any one fishing on the sea-shore for salmon other than the proprietors of the fisheries, but restricting that prohibition to within a mile of the shore.

692. All fish taken in herring nets are caught by the gills, are they not?

The herrings are caught in that way, but the salmon might be entangled in the net.

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693. Not caught by the head?

No.

694. Would not that account for the fact of no salmon being caught in herring nets?

They are not fitted to catch salmon, but still the salmon might be entangled in a herring net. There are other nets besides herring nets that would take them if they were out at sea.

695. Lord *Lovat*.] Are not dog fish, which are very large fish, sometimes caught in herring nets?

Yes; but I think their noses get in the net.

696. *Chairman*.] Is it your opinion that the stake and bag nets, though not contrary to the letter of the law, are contrary to its spirit?

They are contrary to the whole spirit and aim of the salmon laws. One purpose, all through the statutes, is to prevent any standing object, even a white object that could kill nothing; any white mark set in the water was prohibited, because it frightened the fish in its ascent up the river.

697. You believe that when these grants of sea-coast fisheries were made to the grantees, the possible erection of such engines was not in the contemplation of the Crown?

It could not have been in the contemplation of the Crown, for several reasons. I should suppose that it could not be assumed that the Crown contemplated giving a man a fishery at one point, imposing very severe restrictions upon him, and then that another man round the corner, where, perhaps, there is not very much difference naturally, though they call one the estuary and the other the sea shore, should be allowed to put up engines which the other was prevented from using, to the injury and almost to the annihilation, as it has proved, of the older grants. I think that in the case of the Commissioners of Woods and Forests *versus* Gammell there was a schedule given in, which I have seen, showing all the charters for the sea-shore salmon fisheries granted since the Union. I think these are 16 in number; somewhat less than a score; and there is only one of them within the century; almost none after 1778 or so. Now, those nets were not introduced, at least on the east coast of Scotland, or known, till about 1819, so that all those grants were made without any intention of fishing with fixed nets.

698. Viscount *Hutchinson*.] By nets I understand you to mean stake nets?

Fixed nets.

699. Were not bag nets also introduced about the same time?

The stake nets were somewhat anterior to the bag nets. A sort of stake net was used considerably earlier in the Solway; but on the east coast of Scotland I never could get any trace of either stake or bag nets till, I think, 1819—not of the present stake net.

700. *Chairman*.] But the introduction of the bag nets was still later, was not it?

About 1822 or 1824. I think there was an action raised in 1824 regarding them. About 1822 it has always been understood. There may have been a net or two in the far north, where really nobody attended to the fisheries, but you can find no trace of them among the Salmon Fisheries Acts. The date at which one at Dunninald, on the coast of Forfarshire was put in, was, I think, 1819; and the charter for Dunninald is dated 1778; so that, in that case, as in all others, where there are Crown grants, the grant must have been acquired and made, and the fishery used, without any regard to those fixed nets. The very fact of a proprietor of fisheries having a Crown grant of sea-coast fishery, is evidence that it can be, and that it has been, fished by other modes than those fixed nets.

701. Lord *Lovat*.] Are the shores where those fisheries have been granted suitable for net and coble fishing?

It would not be so effective in most places.

702. When those fishings were granted, would not the net and coble have been the way of fishing?

It

It must have been net and coble, or some similar system ; it could not have been those fixed methods, because they were not invented then, and in most cases not for generations after. There has been no charter granted since those nets were known to any extent, unless it was the case of Avoch, in the Moray Firth, granted about 25 years later than any other.

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703. *Earl Cawdor.*] Is it your opinion, that if a person has a grant of a charter of fishery, he should be restricted to the modes of fishing in use at that time, and should not be allowed to use any improved modes of fishing ?

If you allow the other fisheries to use what you may call improved means, it might be just ; but I do not think it is just to allow one man to use one kind of engine, and prohibit his neighbour, whose property is much more ancient, and much more valuable, from using them also.

704. *Viscount Eversley.*] Were the parties to whom the fisheries were granted limited to the description of nets they should use ?

No charters, that I am aware of, limit the modes of fishing, but the Acts limit them. I consider it is a mere omission of the law that it did not prohibit those fixed nets on the coasts, as well as in the rivers ; because at the time the laws were made those engines were not invented ; and it was not known that any fixed engines, not those fixed engines that they used in the rivers, which the Acts prohibited, could be used on the shore ; nor was it known, popularly, that the course of the fish was along the shore ; and, in point of fact, the course of the salmon along the shore is not in most instances much broader than its course within the rivers.

705. *Chairman.*] Is it the fact that Private Acts have prohibited the use of engines more ancient than the stake and bag nets, and, unquestionably, up to that period legal ?

Yes ; the Tweed Acts have prohibited the stell nets and the cairn nets. There were hundreds of cairn nets on the Tweed, and there was also an instrument called the leister, which was very popular and very ancient ; they were all suppressed by the Tweed Act of 1857 ; and, in some cases, the fisheries on the Tweed, being so much subdivided, some men having only a few yards, the stell nets were said to be the only mode of fishing available at those points ; and, in some cases, those nets were the only property of particular individuals ; yet those were suppressed by the Act of 1857, simply on the ground that, though not reached by the letter of any Act, they were contrary to the spirit of the salmon laws, and were injurious to the general interests of the fisheries.

706. The use of those engines is still lawful in some rivers, where the use of them has not yet been prohibited ?

There is a sort of doubtful legality, but I never saw them in any river properly so called. I have seen them in the wider parts of the Tay, below Dundee, which is quite a different place from the river, though technically it is the river ; it is 30 miles below the shipping port of Perth.

707. Are you speaking of the stell net or the leister ?
The stell net.

708. Is the use of the leister still lawful in some rivers ?
It is.

709. Is it practically used ?
Very little indeed ; it was chiefly used on the Tweed.

710. *Lord Colville of Culross.*] Is not the leister used in killing black fish in some rivers, when they are not protected during the winter ?

Yes ; on rivers not well protected.

711. *Viscount Hutchinson.*] To go back to my question as to the fisheries upon the sea coast ; can you state as a matter of fact what means the proprietors of those sea-coast fisheries used for catching the fish before the introduction of stake nets ?

I assume that they used nets of the same character as the net and coble ; but this is absolutely certain as to all cases, that it was not the engines that they now use, though these are represented as the only kind of engines available.

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The coast fisheries were fished for generations before those engines were invented ; grants were made without reference to the use of those engines.

712. Duke of Richmond.] Are not there many parts of the coast where stake nets and bag nets are placed, which it would be impossible to fish with any advantage with net and coble ?

I think they would not be fished with so much advantage, but that they can be and have been fished otherwise, and I suppose by net and coble, certainly in the great majority of cases, is clear from the fact that grants were applied for and made, and the fisheries worked, before these engines were invented.

713. Have not a great many people put up stake and bag nets upon parts of the coast without asking for any grant or charter at all ?

I am throwing them out of view, as I infer from the result of the Gammell case that they must go.

714. In that case of Gammell, would net and coble fishing pay on the Kincardineshire coast ?

I infer not. I infer that if the use of the net and coble had been practicable there, the owner of the estate would have had a grant long ago.

715. Lord Colville of Culross.] Do you know the east coast of Scotland, between Aberdeen and Stonehaven ?

I have sailed along it often, but I have not visited the nets on that part.

716. Earl Innes.] Are you not aware that the stake nets which existed upon the property of Greenwich Hospital, to the south of the mouth of the Tweed, were put down under the Tweed Act of 1830 ?

I am quite aware of it. I was at a trial where they were put down. The case was brought up to the Queen's Bench afterwards, and confirmed.

717. Were they put down as being fixtures ?

They were put down as being within the limits of the then Tweed Act.

718. But the limits have been since extended ?

Yes. They were prohibited somewhat vaguely, "all bar nets," which caused a great deal of dispute as to what a bar net was.

719. Duke of Richmond.] There has been no general Act of Parliament to prohibit these engines being fixed, and it has only been in Private Bills that the prohibition has been enacted of late years, I think ?

Only by Private Bills.

720. Are you aware that a Private Bill does not undergo the same public investigation in the Houses of Parliament that a Public Bill does ?

I presume your Grace is right in saying that such is the case. But I saw the report of the Ness and Beaully Bill in the House of Commons ; and I know that in the Committees on the Private Bills for the Tweed there was much more publicity than in inquiries, such as this, in reference to General Acts. The proceedings were published from day to day, and it went on for weeks and weeks during two Sessions.

721. Chairman.] Is it your opinion that if some restriction be not placed on the use of stake and bag nets, they will soon cease to be profitable, in consequence of the diminution in the breed of salmon ?

I think that the time will come that they will destroy themselves, even before they have destroyed their neighbours.

722. Earl Innes.] In fact the coast fisheries must suffer ?

In some cases I think they may come below the paying point before the river fisheries, because they require on the average, I should say, $2\frac{1}{2}$ more produce, in some cases six times more produce, to pay than the river fisheries do ; that will hit them at some point.

723. Earl Cawdor.] It has been said by some of the witnesses that the diminution of the salmon is owing not only to the use of the stake and bag nets, but to over-fishing generally ; what is your opinion upon that point ?

I think there has been increased efficiency in the net and coble fishing, especially on the Tay ; but the Tay is a special case, owing to the Act which they call the Navigation Act, which authorised certain operations on the bed of the river with a view to the shipping at Perth, and that made the bed of the river much

much more easily fished by the moveable nets, there is no doubt of it; that is a special case, but I think they generally fish all kinds of nets more severely than they did before.

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724. You think there has been over-fishing generally?

I think there has, especially with so late a close time.

725. *Chairman.*] Are there not other causes at work to produce this effect, such as mill-dams and weirs, and pouring poisonous material from gas works, for instance, into the streams which flow into these tidal rivers?

I should say as to gas works, there is not much damage done by them yet.

726. Or the liquid which comes from bleaching?

On some small rivers, for instance the Esk, which runs through the Duke of Buccleuch's grounds at Dalkeith, in my extreme youth, I have known grilse got there, but nothing can live there now, owing to the towns above pouring in their refuse; that occurs in only one or two small rivers: none of the great salmon rivers, I think, have been much affected by that. Migratory fish are not so liable to be injured by that as fish that inhabit the rivers all the year.

727. Or by mill-dams and weirs?

They do obstruct; there are enactments for keeping them open. I may mention that on the Tweed, which shows, perhaps, with the exception of one or two of the Ayrshire rivers, the largest decrease, there really is no obstruction of that sort for 100 miles, nothing but what the salmon can go over quite easily.

728. *Duke of Richmond.*] Are there paper-mills on the Esk?

There is one large paper-mill on the South Esk, just above the Marquess of Lothian's park.

729. Are there any fish at all to be found in that stream now?

I saw killed, in his Grace's grounds, some 10 years ago, some very large trouts, and the keeper told me that he did not know there were so many in the river; there have been scarcely any seen since, I believe.

730. In point of fact, is it not universally advocated in Scotland, that where a great many paper-mills have been erected of late years, they have destroyed all the fish in those small rivers, in consequence, it is supposed, of great quantities of sulphuric acid being now used in the manufacture of paper and parchment?

Yes; I think paper-mills, and still more bleaching fields, are exceedingly destructive of fish. The River Leven, in Fifeshire, was once a fine fishing river; there are still abundance of fish for the first three miles down from the loch; then there are about 12 miles that nothing lives in; but that was never a salmon river. I was talking of salmon rivers. If your Lordships would name any particular salmon river that you thought was injured by those practices, I perhaps could speak to it. I am not aware of any real salmon fishing river where those evils exist to any appreciable amount.

731. *Chairman.*] What is your opinion as to the present close time?

I think that that clause of Mr. Home Drummond's Act of 1829, which altered the close time from the 26th of August to the 14th of September, has been very injurious. The fact is now acknowledged almost universally throughout Scotland; and at a late meeting a formal resolution was unanimously agreed to upon the subject.

732. What amendment of the law in that respect would you suggest?

I would take back the time certainly not later than the 26th of August; I would make that the very latest day of fishing. And as to the opening, I think there should be different periods of opening. I might mention, that where the salmon properties are not too much subdivided to forbid the idea of any voluntary arrangement, the proprietors have really repealed that clause. His Grace the Duke of Richmond, the Duke of Sutherland, and Mrs. Stewart Mackenzie, of Seaforth, have gone back to various dates from the end of July to about the 20th of August, in every case with the best effect. The Tay proprietors have agreed to take it back to the 26th of August.

733. Is it, in your opinion, more important to the fisheries that there should be one uniform time of closing than that there should be one uniform time of opening?

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I think there might be a little difference in the closing, but do not think it is of much importance. I think there should be a difference in opening; people talk of late rivers and early rivers, and I have heard counsel in Committees in these Houses quoting Mr. Yarrell on the subject; but even Mr. Yarrell does not mean what sometimes he has been made to mean. I do not believe there is much difference in the time at which salmon begin to spawn in the different rivers, that is, not much fixed or ascertainable difference. I think there is a good deal of difference between seasons, and that the season in the north may any year be very different to the season in the south; but I think the salmon begin to get out of condition, on the whole, much about the same time. And there is another difference, the spawning season is much more protracted in some rivers than in others; in the Tweed it extends over a very long period, and is very irregular; sometimes the river seems deserted by them, and a few weeks after they come again, which is mainly owing to the great distance of the spawning grounds from the sea. It is very difficult to explain how it should be so, but it is a fact that, whilst on the Spey the spawning beds begin about six miles from the sea, and also the best rod fishings are about six miles from the sea, not far above the tide, in the Tweed there is no rod fishery to speak of till you are 20 miles up, and almost no spawning. The rod fisheries go up 50 miles. I would say there is more spawning above the 50 miles than below it. You can easily understand the difficulty of reaching those beds from the distance, and if the river gets low, the fish do not get up, so that the spawning season is more protracted on the Tweed. This year was very remarkable. I saw on a favourite spawning bed scores of fish lying, the water being almost black with them, in the middle of October, that is upwards of 50 miles from the sea; I saw it in a very similar condition, not quite so much covered with fish, in the middle of March; but that is a very extreme case.

734. Viscount *Hutchinson*.] Am I to understand, from your last answer, that supposing a fish enters the river in the month of January, as occasionally in some small rivers is the case, and another fish enters the same river in May, those two fish will spawn about the same time?

I should not venture to say that; I do not know, I do not think any one knows, what the fish are wanting in December and in January, I mean clean fish going up in December and in January; it could not be easily ascertained, because they are killed long before the spawning time comes; it is a mystery what the fish are wanting by their ascent in the spring.

735. Lord *Colville* of Culross.] Do you believe in the theory of salmon spawning in the sea?

I do not. Of course I cannot say they do not, because we cannot see what they do. I have seen them spawning in myriads in the river, but I never saw or knew any one that had seen any salmon spawning in the sea.

736. The advocates of stake net fisheries say that they do spawn in the sea?

They had better produce one; the fry are never seen going up the river; the fry are never seen in the sea except at times when they have descended the river, and are caught in the nets.

737. Duke of *Richmond*.] Is not that opinion very nearly exploded now by everybody, except where local prejudices exist?

I think it was a theory invented by some of the Berwick people to explain something only a few years ago.

738. Lord *Lovat*.] Is the lower part of the Tweed, where you say there is no angling, fished with nets?

It is fished with nets for about five miles up; above that it used to be fished chiefly with the cairn nets, which were all suppressed by the Act of 1857. There is no net available, except at a very few points, I mean about five or six miles up; I should say eight miles up. At certain points they can in certain states of the water still see the fish going over the shallow, and then they shoot a net before it; generally speaking, when you are eight miles up the Tweed, the net fishing ceases; then comes a space where you can hardly say that there is either net or rod fishing.

739. Do

739. Do you think that the Tweed ought to be fished longer than the other rivers?

I never could see any reason for it.

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740. *Chairman.*] You have fixed the period at which the fishing season ought, in your opinion, to close: will you now say at what time it ought to open?

I think there are immense differences as to the period when the clean fish ascend in the late winter and early spring; and perhaps not every river, but every cluster of rivers, it might be, should have a different close time to suit them.

741. Would you leave that point to the decision of some Board or Commission?

I think some Commission, not connected either with the district, or specially connected with the fisheries, should have power to make the law flexible on that point, taking into account more or less the evidence and the wishes of the proprietors. I have an objection to a very early opening; I know that a number of people wish to go back to the old time, the 10th of December; and I think that would be very well for some rivers, as the Thurso and the Ness; but to others there are various objections. It would not pay if it was only the clean fish they took. You might say they would not fish if it did not pay, but then those are the very rivers where the salmon spawning season is protracted; the waters then are very full of foul fish, both spawned and unspawned (what we call kelts, are spawned ones). It would be quite useless prohibiting them being killed, if you had nets working and entitled to work, because they would pull out 100 foul fish for one clean one. I think there is a great temptation and opportunity to take some of the foul fish along with the clean, and the clean fish alone would not pay them.

742. *Earl Innes.*] In the Tweed, in the month of January and the early part of February, is not the majority of the fish foul?

The majority are foul perhaps, not applying so much to the extreme lower fishery.

743. But even there, there is a considerable number of bagots?

Yes; certainly the clean fish would not pay them in January, in the Tweed, and it damages the unspawned fish pulling them out.

744. *Viscount Hutchinson.*] Would not the clean fish taken in the month of January bear a very high price?

Yes.

745. Much higher than later in the season?

Yes, much higher. With regard to the extraordinary difference in the distance and accessibility of the spawning grounds, which, speaking roughly, are close by the rod fisheries, in any provisions such as are in the Tweed Act and the Tay Act, about the extended period of rod fishing after the withdrawal of the nets, that difference in distance requires to be kept in mind; for instance, on the Spey the rod fisheries begin at six miles or thereabouts from the sea, and there is easy access up to that point; on the Tweed they do not begin for 20 miles. I believe the difficulties are about in the same proportion as the distance; so that, in point of fact, 10 weeks on the Tweed really give no more chance of fish to the upper proprietors than perhaps three weeks would do on those other rivers where the circumstances are so different. When the salmon enter the Ness, for instance, though they may not have been half a mile from the tide, they begin to "take;" but the Tweed salmon must be some days in the river, and have run at least 20 miles before they take.

746. *Earl Innes.*] After the net fishing closed in the Tweed last year, for the first month or six weeks there was hardly a fish for the rod-fishers?

Almost none. I think I fished every day there was a chance, and I never saw one at that time.

747. The part of the Tweed where you fished is about 50 miles up?

There are some of us lease about six miles of very poor water; we take it as the nearest to Edinburgh; it is about 50 miles up.

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748. Although the nets had been off for a month, no fish had come to that part?

No, because the state of the water was not favourable for their ascent.

749. Lord Colville of Culross.] Do you consider the cruives very destructive engines?

I have seen very little of cruives; but they kill a good many, and of course they also obstruct.

750. Are you not acquainted with rivers where there are many cruives?

I have seen some on various rivers, but I never watched them working.

751. Have not you also understood that the sheep-washing is very destructive to fish in the small rivers?

I do not think it is destructive; I think it sickens them. I lately fished two days for trout in the middle of sheep-washings; they did not take well; they get a little sick; I cannot say that I ever actually saw a trout so killed. But the sheep-washings do not tell on the salmon; they keep in the main stream, on which sheep-washings have little effect, and they are not in the rivers in large quantities till after the period of sheep-washing, excepting perhaps as to the black-faced breed upon the hills.

752. Viscount Eversley.] Is not sheep-dipping, as contradistinguished from sheep-washing, very fatal to fish?

That cannot tell on the fish till after they wash the dipping off. A great deal of arsenic is used.

753. Chairman.] Do you consider it expedient that rod-fishing should be permitted some little time after the close of net-fishing?

I think it very expedient. I think there is a general admission of that fact now. There used to be a great talk against it, but the lower or netting proprietors seem everywhere to have come round to a different opinion. On the Tweed, for instance, the Bill of 1859 gives the upper proprietors ten weeks after the close of the net-fishing, and the lower proprietors offered to give the whole year round, they cared so little about it. Very few fish are killed by that mode, I mean a very small proportion of fish. I may mention that, when I was writing an article for the "Edinburgh Review," about 12 years ago, I got returns from most of the stations on the Tweed, of both the rod and the net-fishings, and the proportion of salmon killed by the rod was only one-half per cent., that is, half to 100, of those killed by nets.

754. Earl Innes.] Are you not aware that since the extended period of rod-fishing in the Tweed, the upper proprietors have taken a much greater interest in the preservation of the fish, and that portions of the river have been staked at the expense of the proprietors?

Yes; and that the inhabitants generally now look on poachers with much greater disfavour, because they have now a chance of getting fishing themselves. There is a good deal of poaching still, of course; it is only the first year of the Act; but one effect of the rod-fishing is, that the rod-fishers and their keepers are on the river at the time when the leistering, which is the mode poachers use chiefly in the winter, is going on, and that frightens them off very much. At the place I have to do with, of course we never used to go out in the month of November, and scarcely in October; but now, every night I was there, we turned out when we saw the lights, and went to disperse the poachers. Those people would just have cleared the river, if we had not been there, of every spawning fish in it.

755. Duke of Richmond.] Have not the lower proprietors got rid of the prejudice now, that it was not right to give a man permission to do that as sport which they could not do for the purpose of supplying the market?

Yes; I think they have come to be of opinion that it is their interest, because the small quantity killed is much more than counterbalanced by the benefit of having the river better watched, not only by the presence of anglers on the river, but at the same time by the good-will it obtains from the inhabitants of the upper districts generally.

756. You do not think that, in general, rod fishing, as it is permitted under the

the law relating to the Tweed, would be prejudicial to the breed of salmon, from the small number of fish that would be destroyed?

I am perfectly certain of it, and that on the Tweed it is the reverse of prejudicial. I may mention that the water of which I am one of the lessees, is a favourite spawning ground, and probably more fish spawn on it than for 20 miles below or 10 miles above. I do not suppose that we kill a dozen fish in the 10 weeks while we are there protecting the water. I have known cases in which 40 spawning fish have been taken at one sweep of a poacher's net in that part of the river.

757. Earl *Innes*.] Are you acquainted with the river in the neighbourhood of Peebles?

Yes.

758. Are you aware that an association has been formed for the protection of the fishing this last close time, which never existed till the 10 weeks of rod fishing were given?

The county gentlemen and townspeople united in subscribing for staking the water, and in acting as watchers as far as they could, on account of obtaining these 10 weeks of rod fishing; whereas, I formerly heard the Procurator Fiscal say in a committee that they just turned their heads away when they saw poachers fishing.

759. Duke of *Richmond*.] Do you think that an extension of the time of rod-fishing is likely to be an effective mode of protecting the salmon upon the spawning beds?

I am very strongly of that opinion. I may mention that a spawning salmon is never taken by anglers. When the fish are on the spawning bed, they will not take the fly. I believe they have been known very rarely to take a worm; but a worm or anything but a fly is prohibited at that season by the Tweed Act. When I saw the spawning fish, I have mentioned I tried them, as I had often done before, but I found they would not look at a fly.

760. You have stated that as one means in your opinion of protecting the salmon upon their spawning beds. Are you aware that by the law of Scotland, at the present time, there must be the consent of a majority of the heritors of a river to tax themselves for the purpose of protecting the river?

I think that is the case; but I do not know much about the assessment on any river but the Tweed, which has a special Act.

761. Supposing it to be the law that the heritors are to meet together to appoint water bailiffs, is it not the fact, that in a great many rivers in Scotland the heritors decline to have anything at all to do with it, and the persons who have large interests in the rivers, are obliged to pay the whole assessment themselves?

I have heard of several cases. I have heard that on the Spey your Grace has to pay all the assessment yourself.

762. If it be desirable to preserve the salmon upon their spawning beds, would it not be fair to compel every heritor to pay his proper proportion of the charges for protecting the fish?

Every owner of a fishery. I think it would be decidedly fair. That is the case on the Tweed.

763. Viscount *Hutchinson*.] Of course, the assessment should be in proportion to the value of each fishery?

Yes; that is the case on the Tweed now.

764. In the event of that principle being applied to the proprietors of stake and bag nets upon the coast, how would you ascertain to what rivers an assessment from those owners of stake and bag nets was to be paid; it being a matter of uncertainty to what rivers the fish captured in those stake and bag nets belonged?

I would say the river nearest to the south. The fish come from the north; but though they come from the north, they may, owing to the current, cross the mouth of the rivers. In the case of the Tweed, they cross the mouth of the Tweed for about four miles, and then turn in again; but that is owing to some current.

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765. Duke of *Richmond*.] You believe that abolishing the stake and bag nets upon the sea coast would be a very great service to the river proprietors ?
It would be a very great service to all fishers who were not in the habit of using those engines.

766. Assuming that a great benefit is to accrue to the river proprietors by taking away the bag nets and stake nets which hitherto have been sanctioned by law, do you think it would be just to make the proprietors of the river fishings pay to the Crown or to the lessees of the Crown an assessment, so as not to take away their property without giving them anything back ?

As a matter of abstract justice, I am not quite sure that I could answer that in the affirmative. That property, so far as it is derived from or dependent upon stake and bag nets, has grown out of the absorption of other and older property, and by an omission in the law that suppressed such engines elsewhere, but did not suppress them there, for the obvious reason that they were not known at that time.

767. Have not stake and bag nets been often put into marriage settlements and entailed property, and sold, of late years ?

Since 1819, stake and bag nets may have been mentioned in marriage settlements ; I do not know that ; but I know that stell nets and cairn nets on the Tweed, which existed for centuries, were in marriage settlements, and they have been suppressed.

768. Earl *Innes*.] Without compensation ?

Without compensation. Fixed nets can be only in marriage settlements since 1819, and can scarcely be in any entail. One of the reasons for the suppression of those nets on the Tweed was, that the river was becoming depopulated. It was merely a question of time. Perhaps I might mention what the facts were in 40 years. They altered the close time from the 26th of August, which it was till the end of the century, the same as the Scotch rivers generally, to the 10th, and at a subsequent period to the 14th of October ; and the results were, that the take of adult salmon fell during that period 75 per cent.

769. Earl *Cawdor*.] What period was that ?

From about 1811 to 1846. They will not give any more returns now.

770. Earl *Innes*.] Is it not a fact that the rentals of those fishings on which stell nets were employed, increased the year following the suppression of the stell nets ?

I believe so, except in one case of Mr. Cuthbert Ellison's. I rather think that one of his fisheries is not fished.

771. The river stell nets, I mean ?

The up-river fisheries are fishing as well as ever without the stell nets ; but there was another exception of Mr. Mark Young's fishery ; that was a cairn net. I may mention that Mr. David Robertson, the Member for Berwickshire, had upwards of a score of cairn nets, which were all suppressed.

772. Is that fishing let for a higher rental ?

His fishings are more profitable than before ; at least they were the next year. I do not know what they are this year.

773. *Chairman*.] On what data do you ground the assumption that the salmon fishings generally in Scotland have declined ; on any official returns ?

As to the Tweed, of course, I examined the returns very minutely ; I have seen them often ; and with respect to the Dee and the Don I also got returns. It is difficult to give dates and names ; but I got most of the figures. I wrote to all the fisheries when I was engaged in preparing articles for the *Edinburgh and Quarterly Reviews* ; I then stated them generally ; but I could not give the precise figures now, except of the Tweed.

774. Lord *Polwarth*.] Could not you give those statistical returns which you furnished to the *Reviews* ?

I stated the results. As to the Tweed, I can give the precise figures for each of the five years, or for each year up to 1846. I think there has been a little shyness since ; they will not give us any more figures.

775. Can

775. Can you give the returns for the other rivers?

I do not think I preserved the figures; I think I have the figures for the Doon, but the result there amounted almost to extinction.

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776. Lord *Colville* of Culross.] Do you know the River Doon?

A little.

777. Are you aware that a private arrangement was made in the River Doon between the upper heritors and the lower heritors, for 10 years, and the result was, that the river fishings and the sea fishings increased very much?

I have heard so, in conversation with proprietors upon the Doon, but I do not know the facts specifically.

778. Duke of *Richmond*.] Your opinion is, that the early closing, the removing the stake and bag nets from the sea coast, near the rivers, and better protection for the fisheries, would give every probability of the breed of salmon being increased?

That is my opinion.

779. Do you think that the laws in existence against black fishing, as it is called, in the winter, are stringent enough to deter large masses of people from going out in the winter for that illegal purpose?

I think there is one serious defect in the law generally, but certainly in the Tweed Act. I think there should be an increase of penalty for repeated offences. By the plan adopted now, the low fines do something like it by proportioning the fine to the number of fish, but the poachers get over that, because they do not carry their fish with them unless they are so strong that they can beat any probable number of water bailiffs; they generally hide the fish in hedges and under bushes, and are only caught with one fish; and a man will be taken before the Sheriff of Selkirk and be fined 5*s.* who is living by poaching. If you inflicted a small fine for the first offence, and increased it pretty sharply as the offences increased in number, that would not come hard upon some poor man who is tempted to take a chance stroke at a fish, but it would come upon the poachers, of whom there are several in every district, who live by it; it is nothing to them to be fined 5*s.*, or even 2*l.*, when they may have made 20*l.* or 30*l.* before they are caught.

780. Lord *Polwarth*.] Would you make it imperative upon the Sheriff to impose the increased fine upon the second offence?

I would make it imperative upon the Sheriff. I may also say, that the Justices in some districts take very easy views of it. If you take an offender to a town considerably distant from the river, they will perhaps not fine a man as much for taking 20 salmon as for taking one rabbit.

781. Duke of *Richmond*.] Is it not the case, according to the present state of the law, that if a poacher is brought before the Sheriff, who decides that he is to pay a penalty of 10*s.*, or go to gaol for three weeks, and you give the man three weeks' imprisonment, you fine the prosecutor, because the prosecutor has to pay for the prisoner's maintenance while he is in gaol?

Not on the Tweed; there the Commissioners prosecute. Supposing I lodged an information on the Tweed against a man for poaching on water that I leased, I would not pay the expense, except so far as that water is taxed to a general fund.

782. But the maintenance of that man, during the time that he is in gaol, is paid by the Commissioners?

Yes.

783. Do you see any reason why salmon poachers, who go out with their faces blackened, in large bodies, to intimidate or do violence to the water bailiffs, should not be dealt with exactly in the same way as a man who has committed any other offence against the laws?

In the case of an assault, of course, he is dealt with differently. I believe there is a man in gaol now for assaulting a bailiff, having been tried under the criminal law. I am not quite sure that the man's maintenance in gaol is paid for by the prosecutor, but the expense of the prosecution is. I am not aware, if a man is put into Jedburgh gaol, that the Commissioners pay for his maintenance.

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784. If at the present time the water bailiff sees an individual take a salmon in close time, is not he obliged to go to the Sheriff, or a Magistrate, for a summons; he cannot take him then and there, can he?

I think he can, under the Tweed Act.

785. Can that be done under the general law?

I believe not. I may mention that the poachers on the Tweed combine to pay one another's fines; sometimes, if a man is charged with perhaps two offences, and sentenced to a month's imprisonment for each, or a fine, he takes one month, and pays the other. I met a man the other day, who I thought was in Jedburgh gaol, and I said, "How is it you are here again"? He said, "I took a month, and then, when the fishing began, I paid the other." He took a month in gaol when there was no fishing.

786. Lord Colville of Culross.] In a case where a great many of these spawning black fish are taken, what becomes of them?

They mostly go to Paris.

787. Duke of Richmond.] Are not they pickled?

They are sent up fresh to London, and they go forward from London to Paris.

788. Earl Innes.] Would you think it advisable, in any general Act for the protection of salmon, that there should be a minimum penalty upon any person having in his possession foul fish at any period; in the Tweed Act there is a penalty for having foul fish during the close time, but the penalty does not extend to the possession of foul fish after the close time has expired?

I think there ought to be a penalty.

789. Would you extend the penalty throughout the whole year?

I am not sure, it is so difficult to define a foul fish.

790. A kelt or bagot?

I think it is difficult to tell when a fish becomes a bagot; a kelt is quite distinguishable.

791. Lord Lovat.] Is there any penalty against a person having these fish in his possession?

I forget whether there is a penalty.

792. Chairman.] Have you any further suggestions as to the amendment of the law to offer to the Committee?

I think there might be a very great saving of expense in the fishing of most rivers now, if the proprietors would come to some agreement. The whole object of the law is to prevent the use of too effective an engine at any one point, and the consequence is there are great difficulties put in the way of each man fishing, in order that he may not injure his neighbour, of course; but when you have got now by long use to ascertain the proportion that each fishery bears to the whole fishery of the river, (you would require an Act to do it), you ought to fish the river effectively with as few engines as possible, of course taking security, either by limiting the time, or limiting the quantity, that a due proportion of fish get up to the upper waters. They might fish most rivers at a fifth or a tenth of the present expense.

793. Lord Polwarth.] Your idea is to fish the river economically, and divide the spoil?

Yes; divide the spoil according to the ascertained value of each fishery to the whole.

794. How would that affect the upper proprietors; you would not allow them to fish at all under those circumstances?

I think by either limiting the time or the quantity, you could let a certain proportion up, and you could make the proportion larger or smaller as you chose. I do not think there would be any difficulty in that respect.

795. You mean, that where machine fishing is carried on it should be practised in the most economical manner by cruives or particular nets, and the spoil should be divided according to the value of each fishery?

Yes, carried on during a given time in the week, or a given time in the day.

day. The expenses of the fishings are at present enormous; you will see hundreds of men shooting nets on chance, though there is a point perhaps not far off where they could stop as many fish as they liked, and let as many pass as they liked; two men could do the work of a hundred. There is one remark I omitted to make about the bag and stake nets; there is some light thrown on them by the Spey. If the coast and river there had happened to belong to different people instead of belonging to the same proprietor, somebody setting up stake nets there, 20 or 30 years ago, would have taken away half the fish that were and are now again caught in the river; and then it tends to show that stake nets also affect the total take, because in the Spey there are now double the quantity taken in the river alone that were taken both on the coast and in the river before the removal of the stake nets. I think I am right in saying (it has been given in evidence else, I would not mention it) that his Grace the Duke of Richmond failed to let his fisheries some years ago during the existence of stake nets for 6,000 *l.*, and having them now in his own hands makes a clear profit of 12,400*l.*

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796. *Earl Cawdor.*] Do you attribute that increase in the Spey entirely to taking off the stake nets?

To a certain extent; and of course, they get the fish at a less expense.

797. Has there been any alteration in the close time on the Spey?

Yes; his Grace closes earlier than the law requires, and he also saves expense by that.

798. *Lord Colville of Culross.*] Is not the close time on the Spey the 24th of August?

Yes; it varies a little in different seasons.

799. *Lord Polwarth.*] You have turned your attention a good deal to the fixed nets on the sea coast?

Yes.

800. Do you conceive that they may be greatly improved and carried out to a much greater extent than they are at present?

I have already mentioned that they have become recently much more destructive than they were before, by the device of putting bag nets on at the outer end of the stake nets.

801. Are you aware that they have been fishing in as much as 50 fathoms of water?

I know they go out very deep; they do not much mind the depth. My theory about that is, that the course of the salmon is not in water of anything like 50 fathoms. The salmon caught in the outer bag nets are those that have struck the stake net inside, and have gone out and have tried to coast along again.

802. *Duke of Richmond.*] You were alluding to the Spey, and to the advantage which has occurred from the quantity of fish that has been taken since the stake nets have been taken off at the river's mouth; are you aware that they have not been taken off at Tannachie and Port Gordon, which is two or three miles to the eastward of the mouth of the Spey?

I have heard it said in evidence that there were two nets still standing.

803. Have you not heard it stated by the proprietor of the Spey, that taking away the stake nets from the river's mouth and establishing an earlier closing time, and a more efficient protection, was, in his opinion, the reason why the Spey did not fall off in the number of fish as much as other rivers?

I think I heard both your Grace and Lord March say that. I may mention about Mr. Jopp's pamphlet, which some member of the Committee has handed to me, that there is a little confusion about prices which may lead to misapprehension. The prices are very much higher now than they were; but the table here refers to the London prices, which are not much higher, if at all higher; but the price over the country has doubled or trebled; that is owing to the facility of communication. Salmon can be sent to London so easily that, in fact, the London prices regulate the prices all over Scotland now.

804. The fish come to London by railway in better condition and much fresher than they used?

Yes; the London market is made the rule for everything, even the white fisheries; there is a Billingsgate firm, which takes most of the fish caught on

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the coast of Fife; they take it through Edinburgh where fish are often much dearer, and they say the reason is that the fishery fluctuates, and if you should have a great catch some morning in Fife you would glut the Edinburgh market, so that they will not be bothered about it, but will carry them all to London. The fact I intended to state was, that though the figures, showing the prices in the London market, do not show any enhancement in the price of salmon, nevertheless the price in Scotland used to be a mere fraction of the London price; but the railways have equalised the prices all over the country. I asked one of the largest fishmongers before I came up, and he quite agreed that the price is fully doubled even in Edinburgh.

805. Viscount *Hutchinson.*] Referring to the table in Mr. Jopp's pamphlet, at page 5, the price for 1859 is 1 s. 0½ d. Under the present condition of the easy transmission of fish from Scotland to London, how much of that do you think is absorbed by expenses, and what would be a fair price to put down as the price of the fish at Aberdeen?

I was trying to explain that. I do not believe it will be a bit cheaper at Aberdeen at the same date. They prefer to take it to the London market and pay the carriage. They are always surer of steady prices and of any quantity being taken off, and they send a variety of white fish the same way.

806. Can you state what would be the average expense per pound of transmitting salmon from Aberdeen to London?

I cannot.

The Witness is directed to withdraw.

MR. ANDREW YOUNG is called in, and examined.

Mr. A. Young.

807. *Chairman.*] I BELIEVE you have considered the subject of salmon fishing in Scotland with a great deal of attention, and that you were for some time the manager of the Duke of Sutherland's fishings?

Yes.

808. You are now the lessee of several considerable fishings in different parts of Sutherlandshire and Ross-shire?

Yes.

809. Are you the author of several works on the subject of salmon fishing?

I am.

810. Are you of opinion that the salmon fishings generally, with which you are acquainted, are in a declining state, that is to say, that the take of fish is less than it was some years ago?

There is no doubt of it.

811. To what cause do you principally attribute that decline?

The cause altogether is fixed machinery on the coast, as well as fishing too late in the season.

812. What are the amendments in the law that you would propose?

I would propose the removal of all fixtures, and I would propose falling back to the old Scotch Acts, under which the fishings flourished, that is, commencing on the 10th of December and closing on the 26th of August; that was for hundreds of years the law of Scotland, until such time as Mr. Home Drummond's Act was passed in 1828. Mr. Home Drummond's Act changed the time of opening from the 10th of December to the 1st of February, and the time of closing from the 26th of August to the 14th of September.

813. Would you also prohibit the use of cruive dykes and other fixed engines in the rivers above the tide-way?

I would remove all cruive dykes where there is more than one proprietor on the river. Where there are several proprietors on the river, I would have

have all the cruive dykes taken down as well as fixed nets taken down on the coast.

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814. Duke of *Richmond*.] Why would you do that?

Because the cruive dykes give no chance to the upper proprietors getting fish, compared to what they would have if there were no cruive dykes on the river.

815. The object not being to give the salmon to one proprietor instead of another, do you believe that the cruive dykes prevent the fish going up to spawn?

There is no doubt they do, when they keep them in late in the season. If all the cruive dykes were opened at the end of July, they would do no harm to the spawning fish.

816. When do you take off your cruive dykes in the north?

We have them all taken off in Sutherlandshire, except one, and that cruive is regularly opened the last day of July.

817. If cruive dykes do damage to the spawning salmon, why should not a man who is the sole proprietor on a river get rid of that obstruction, which does mischief to the spawning of the fish?

When he has a cruive upon a river there is generally no net fishing; it is done at a great deal less expense; that is all the difference.

818. Do you occupy any river now from the Duke of Sutherland?

Yes.

819. Is the whole of the river the property of the Duke?

Yes.

820. You keep up the cruive dyke, do not you?

We keep up the cruive dyke, but we open the cruive 60 hours in the week altogether.

821. Is your reason for thinking that an exception should be made in favour of a man who owns the whole of a river, that the cruive dyke should be allowed to remain, because you have found the beneficial advantages of it in that river, which you hire from the Duke of Sutherland?

Yes. Suppose the cruive dyke were taken down, all the difference it would make would be a little more expense in working; we have no net and coble fishing on the river, nothing but the cruive; and if the cruive dyke were down, we would fish the river with the net and coble, and we should kill as many fish, or perhaps more.

822. Why should one man be placed in a more advantageous position than others; is not the object of taking away the fixed nets to prevent over-fishing the river, and to insure that the fish may get up to spawn?

I would not care much, for my own part, supposing the cruive were removed. The Duke of Sutherland has voluntarily taken down 16 cruives upon his rivers; there is only one river in the county where there is a cruive.

823. Earl *Cawdor*.] In what river is that?

The River Shin.

824. Lord *Colville* of Culross.] Does not one bank of the Shin belong to Sir James Mathieson?

Yes; but he has no right of fishing.

825. Duke of *Richmond*.] Was the Shin ever fished with net and coble?

Not the river; we fish in the tideway, out from the mouth of the river, with net and coble.

826. Do you use stell nets?

No.

827. No fixed engine at all, except the cruive dyke, which you have mentioned?

No, except the cruive dyke; in all the fisheries that I have, there are no fixed engines.

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828. *Chairman.*] Have you had much experience in fishing by means of stake and bag nets?

I have seen them often fished, and I have known a great deal of destruction done by them; they have reduced the salmon to that degree that there are a great many stake nets discontinued, because the salmon are done. I can show your Lordships a plan of the estuary, and of the River Ness, where they have continued about 21 nets, and have discontinued 17 (*producing a plan, and explaining it to the Committee*); those 17 nets were voluntarily dropped, because there was no salmon; that is the truth of it.

829. *Duke of Richmond.*] For what purpose was that plan prepared?

That plan was prepared for a Bill that was brought in for removing those fixtures on the Ness and Beaully.

830. A Private Bill?

Yes; and I have no hesitation in saying that in the course of another 10 years they will be all discontinued.

831. *Lord Lovat.*] For what reason will those nets be discontinued?

There will be no fish to kill; the salmon have been so much reduced since 1828; they have been more than half destroyed already; and I will be bound to say that in another 10 or 12 years, salmon will be only a thing we have heard of.

832. *Lord Colville of Culross.*] Have you any stake or bag nets?

Not one. The north coast of Sutherlandshire was entirely ruined by bag nets in a few years, and the consequence was, that the Duke of Sutherland had to let his rivers remain unfished by any means. On that north coast the number of fish taken was reduced from 42,000 to 1,300.

833. *Lord Lovat.*] Within what time?

In five years.

834. *Lord Colville of Culross.*] By Mr. Hogarth?

Exactly.

835. *Chairman.*] Is the expense of fishing by means of stake and bag nets greater than by means of the net and coble?

When the net and coble was used regularly in these rivers before, the supply of fish kept up, some years a little better and some years a little worse, and there was no reduction of the fishing; but in the course of that time, when they fished altogether by these fixed nets, they were reduced from 42,000, which they got the first year, down to 1,300 fish.

836. The question which I asked was, whether fishing by stake and bag nets was a more expensive mode than fishing by net and coble?

Where it is a rocky coast it is expensive, because the nets are expensive, and get very often broken by storms; they take fewer men, but there is more expense for the nets.

837. *Earl Cawdor.*] Are not bag nets placed in such a situation that you could not fish with the net and coble there?

On a rocky part of the coast, you could not fish with the net and coble. If these fixtures are allowed, they can be extended so that the lower fixtures can catch all the fish. In the first part of my time, there were only stake nets where the fish got into the chamber at low water; but now they have a bag net at the end of the stake net, and another bag net at the end of that, till, sometimes, they have them a mile out, so that no fish can pass.

838. *Lord Colville of Culross.*] In your experience of the Sutherland rivers, especially the Shin, are there as many salmon in those rivers as there were ten years ago?

No; they are not falling off so fast as they were when the stake nets were close to them, but a great many of the Sutherland salmon are killed on the coast of Caithness.

839. There are stake nets at Thurso, are not there?

Yes.

840. Do those stake nets intercept some of the Sutherland fish?

Yes;

Yes ; after you go south past the Thurso, you have no good breeding river until you reach the Sutherland rivers ; all salmon killed on the south of the Thurso are on their way to the Sutherland rivers, because when the fish are foul they go to the north ; I cannot say how far out to sea they go, but all the runs of clean salmon come from the north, and these nets on the Caithness coast are altogether supplied by the Sutherland salmon.

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841. Most of the Sutherland rivers being very small short rivers, the rod fishing pays so well in rent, that it is hardly necessary to have stake net fishings as well ; is not it the case that the Shin pays a very high rent for rod fishing ; do not you pay half a guinea a day for rod fishing ?

Yes ; we charge half a guinea a day ; but the river is not always in fishing order.

842. But still you pay every day in the month, whether you get fish or not ?

It is not generally charged if the fishing is bad ; I have known a party take the river for a month, and it being so low when they came to fish that we just allowed them to go away, and allowed the river to lie without making them pay.

843. As a general question, is not the rent for rod fishing in Sutherlandshire as great as the rent would be of stake net fishing, supposing they were reintroduced ?

In some of the rivers it is so ; in the Brora, and Helmsdale, I think it is as much, but not on the Shin.

844. Duke of Richmond.] The Shin you occupy yourself ; have you seen a great increase of salmon in the Shin of late years ?

No ; after all we can do by closing earlier to insure a regular supply, we cannot get an increase in the river, so long as there are so many fixed nets along the coast of Caithness.

845. How do you protect the Shin in close time ?

By watchmen upon it.

846. Is it well protected ?

It is well protected ; we have men upon the river, and we have the interest of the Duke of Sutherland, because the people thereabouts, most of them, are his own tenantry. It is very seldom we ever see a poacher ; I have not seen a poacher on the Shin for ten years past.

847. Not in the close season ?

No.

848. Have they given up firing the water ?

Yes ; there is no such thing as going to the Fords, and taking the fish off there.

849. Lord Colville of Culross.] The Shin salmon do not spawn in the River Shin, I believe, but higher up in the lake ?

They go sometimes into the little rivers that run into the lake ; there is a place about two miles below Lairg, where a great many spawn.

850. Chairman.] Do salmon usually return to the rivers in which they are bred ?

They do.

851. Is there any distinction between the fish bred in one river and another, so that they are at all to be recognised ?

Perfectly ; we have five rivers that run into the same tideway where we fish, and there are not two of those rivers that produce salmon of the same shape or of the same weight. The weight of the Shin salmon is nearly double the weight of the salmon in the other rivers and along the coast ; the difference is easily known.

852. So that each river depends for its supply upon its own clean fish ?

Yes. It is strange, but it is a certain fact that the fish of all those five rivers have to come through the same tideway at Bonar Bridge ; and to see the fish of every river striking off as they come up the rivers, is something remarkable.

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853. Are there any stake and bag nets within such a distance as at all to affect your fisheries. What is the nearest point at which any stake or bag net is now established in Sutherlandshire?

You must go to Berriedale. After you go a long way past the coast of Sutherlandshire, the nearest bag net is in Ross-shire, at Tarbat point; that is the furthest point of Ross-shire, and that is the first bag net that commences to destroy the fish.

854. Do you believe that those bag nets intercept any fish that would go into your rivers?

Of the Shin fish I believe none are caught in the net at Tarbat point.

855. Does the bag net of which you have spoken at Tarbat point?

No; I do not think that the Tarbat point does any harm, because it lies far away to the south side of the Firth altogether.

856. Duke of *Richmond*.] What you mean to say is, that the bag net at Tarbat point does no mischief to any of your rivers; but you do not mean to say that it does not do mischief to the rivers further west?

It does mischief to the Conon River, the Ness and the Beaully, that there is no doubt of; it is the fish going away to the Ness, the Beaully, and the Conon that that net catches altogether: it does no harm to the Sutherland rivers.

857. Lord *Colville* of Culross.] Do you agree to the statement that the salmon come from the north?

Yes.

858. Lord *Lovat*.] And that they keep the coast?

Yes.

859. Duke of *Richmond*.] Do you believe that the Sutherland fish ever go to the south coast of the Moray, or the south coast of the Firth. Do you believe that the bag nets opposite the Firth do you any mischief?

None; they do us no harm in Sutherlandshire.

860. The fact is that the salmon hugs its own coast?

Yes; the Morayshire fixed nets do harm to the Spey and the rivers on that coast; there is no doubt of that; because it is the fish belonging to those rivers that are on that coast. There is a strange idea with some people that the salmon breed in the sea; there is scarcely any man who has studied anything about salmon, but has seen them spawning in the rivers, but there is no man that has seen them breed at sea. There is another thing, if you take salmon ova and put it into salt water, it destroys it, but if you put it into fresh water, you may breed it; therefore, if you see that salt water destroys the ova, I think you may as well put an egg into boiling water, and think that you will bring a bird out of it.

861. When you say that the Morayshire stake nets do mischief to the Spey, you do not mean that quite literally, because Morayshire is to the east of the Spey?

I mean all the nets on that coast.

862. Lord *Colville* of Culross.] Are not stake and bag nets abundant in the Cromarty Firth?

Yes.

863. Have not the fishings of those rivers been very much destroyed?

They are done altogether; they are scarcely worth the fishing. Lord *Lovat* could not let the Beaully fishings; that is done; the fish are killed out; and there is the Honourable Mrs. Stewart Mackenzie; they had to keep their fishings in their own hands; they will not let. I tell you plainly, my Lords, that the fishings in Scotland, unless there is something done, and that soon, will be ruined altogether. It is the easiest thing in the known world to get a right fishing Bill; there can be nothing easier. We have a precedent for it, by returning to the system of fishing previous to the introduction of fixed nets on the coast.

864. Would you abolish cruives as well?

Yes; I would return to the system that was adopted previous to the introduction of stake and bag nets, and fall back to the old time of opening and closing

closing the fishings. There is many a river where there is a great loss from not being allowed to fish till February. The salmon come up in December and January, and go to the rivers and lie there till they get dark, and they return foul to the sea, without ever spawning; I have cut them open often and found that they were going down not spawned. The largest salmon that we get is in December and January, and these large fish are lost altogether to the proprietors of the fishings, and are lost to the country in general.

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865. *Chairman.*] Do you think the fishing season should open earlier than it does now?

I should open it at the old time, on the 10th of December.

866. And close it on the 26th of August?

Yes.

867. *Duke of Richmond.*] Do not you believe the weight of the salmon to be in consequence of its age, to a certain extent?

To a certain extent.

868. Then the proprietor of the fishing does not lose much if he gets a fish of 25 lbs. weight in the year 1858, and it only comes to 30 lbs. in 1859?

It would be this loss, that you have these large fish going into your rivers and you do not kill them, and you allow them to get to your next neighbour's bag net, and he gets them when they are coming back from the sea to the river.

869. Which would you prefer, a salmon of 40 lbs. weight, if you could get one, or one about 20 lbs. from the sea?

I should say the 20 lb. salmon is the most pleasant one.

870. *Lord Colville of Culross.*] Have the fish in the Sutherland rivers fallen off much in size the last 10 or 15 years?

We have not much difference of size in the Shin, but we do not get many of them above 30 lb. or 34 lbs. weight.

871. That is a very large fish with you?

Yes; I have fished for nearly 50 years, and I never had the opportunity yet of killing or seeing a 50 lb. salmon; depend upon it that with those who get 50 lb. salmon, many a pound of it is only in imagination.

872. *Earl Innes.*] By opening the river in December, do not you think that a great many fish full of roe would be taken?

No, the most of them are up at the fords, or near them; in the Tweed it would make a difference, because they would use the Tweed too much; by fishing late they get the fish out of the natural season, but if the Tweed were allowed the same season as other rivers, in a few years it would be like other rivers.

873. You think there is no reason for continuing the fishing in the Tweed later than other rivers?

No.

874. It has been stated to this Committee, that the fish remain in better condition longer in the Tweed than in other rivers; do you agree with that?

I think there is nothing in that; by fishing late you kill your early fish, and you throw your breeding fish naturally into the winter. Before the passing of the Home Drummond Act, on the Tay the throng of the breeding was in November, and after the passing of that Act, and continuing the fishing late in the season till the 14th of September, the spawning season got later and later, till the throng of the breeding was in December; then they got that Private Bill for the Tay, that closed their fishing on the 26th August, and this last year the fish have fallen into their natural state; there is plenty of evidence of all these things; there is no imagination. I do not speak one word from imagination, because I have seen it all done, and it has been my study for my lifetime.

875. *Lord Lovat.*] Have you fished in the Tay?
From 1814 to 1832.

876. At that time there were no stake nets?
No, the stake nets were taken off in 1812.

(135. 2.)

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877. Viscount

Mr. A. Young.
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877. Viscount *Eversley*.] Would you propose to have all the rivers closed and opened at the same time?

Yes; I know that there are many rivers in which you will not get clean salmon perhaps till April; but at the latter end of the season, in the middle of August, the fish in those rivers are as full of spawn as in the rivers that open early. We have no late and early rivers, though we have long and short season rivers. There is, on the west coast of Sutherland, the Inver, the Laxford, and a number of rivers in which not a fish is got perhaps till the first of May, and in the spawning season the fish in these rivers are spawning as early as in the Shin. If you make a law to keep those fishings open, a few years would fish off all the fish. When I had the management of these rivers round the coast, I closed those rivers at an earlier time, otherwise in four or five years we would have fished off the last fish there.

878. *Chairman*.] Do not you think that the enforcement of the Saturday slap by the owners of stake and bag nets would have a very beneficial effect?

It would have very little; it would be a mere drop in the bucket, and only pruning off one of the evil branches; the fishings will be done unless you remove the fixtures. It is the easiest thing to make a right fishing Bill for Scotland; but unless you remove the fixtures a Bill is not worth the paper it is written on.

879. You do not think that the abolition of the use of bag and stake nets would be an unjust interference with existing legal rights?

I think it is a great deal more an injustice to proprietors who have got Crown grants of fishings for services, which they or their forefathers have done to the Crown, to allow any person to put in a fixture, so as to create a barrier to keep all the salmon from those people. Where is the reward for their deeds? This is the worst of it; nearly all these sea-coast fishings have no grant; there is no such thing; there is not a Crown grant. We are perfectly aware that all the fishings originally belonged to the Crown of Scotland, and very few of those sea-coast fishings have Crown grants.

880. Lord *Lovat*.] Do you suppose if the stake and bag nets were removed, that net and coble fishings would be profitable upon the sea-coast?

If you take the fishings in the estuary of the Ness about the Chanonry point, and remove all the fixtures, I will give the same rent that they give at this moment with the stake and bag nets, and I would kill more fish with the net and coble; there is nothing to prevent it. The whole of my fishing is in the tideway; the whole of the fishings on the Tay at Dundee are fished with the net and coble, and there is no such thing as a fixture; it is quite easy to do it; but the owners of fixed nets will make a great cry out that you cannot do this and you cannot do that; people do not like to let go an unjust thing, when they have got hold of it.

881. Lord *Colville* of Culross.] Do you think many fish are driven into the rivers from the sea by tide lice?

I am not sure of that; I could not speak to it; it is thought by numbers that it is the sea lice that drives the salmon into the rivers.

882. Do not you catch a great many fish in your nets fresh from the sea, which have no sea lice upon them?

Yes, we catch them with no sea lice, and we catch them with sea lice.

883. Do the tide lice attack other fish, such as mackerel, cod or haddock?

I am not sure, I rather think not; I never heard of it.

884. Do you see any objection to extending the period for rod fishing after the net fishing is over?

I should have no objection to it, because it is really a drop in the bucket, all that is caught by the rod. I would have no objection to extending it to the 1st October, but I should not like to see the northern rivers fished longer than that; we have a great many breeding fish at that time.

885. Duke of *Richmond*.] Why would you extend the fishing for sport when you will not allow it for merchandise?

There are two or three things I would allow it for; there are the proprietors high up the rivers that get very little fish; the nets that are placed in the lower

lower parts of the river in the summer time get all the fish, and they do not get up the stream until we have the early September rains; and this would give some encouragement to the upper proprietors to assist in protecting the river; because the proprietors will not assist in protecting the salmon for those who are in the lower parts of the river, unless they obtain something for themselves.

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886. You mean to say that the upper proprietor, unless he is a very conscientious man, will not obey the law without you bribe him to do so?

There is a difference in that.

887. *Earl Cawdor.*] In addition to these artificial impediments, are there not in many rivers natural impediments to the ascent of the salmon, such as falls?

Yes; but in certain states of the water the fish get over most of those falls. We have a fall on the River Shin about 16 feet high, and when the river is very low, the pool below gets so low that the leap is very high; and when the river is very high, there is such a rush over the fall that the fish cannot take it, but in the middle state they will jump over it.

888. Would it be desirable that some power should be given to remove those impediments, so as to facilitate the ascent of the fish?

I think it would be a very good thing; but it would not be very easily done on the Shin, because when they get up the fall there is a continuation of rocks, a long way, about the same height.

889. Are there any places in which artificial assistance might be given to the ascent of the fish?

Yes, they could be taken up by stairs.

890. *Lord Colville of Culross.*] Take the Kirkaig, is not there a fall there that the fish cannot get up.

There is a fall which they cannot get past, and the fish never get up to the principal breeding grounds, therefore there is never a good supply of fish there.

891. For that reason would not it be a good thing, if it were made imperative that an obstruction like that should be removed?

Certainly.

892. It would increase the fishing in the Kirkaig very much?

Yes; there has been a gentleman fishing in the Shin who has had the Kirkaig for a number of years, and last year, I think, he only caught one salmon.

893. *Chairman.*] You think that an Act to produce the best effect in the salmon fisheries may be very simple, consisting only of a few provisions, namely, the suppression of stake and bag nets, and the restoration of the ancient period of close time?

Yes, and a pretty high penalty for killing kelts and foul fish; those are the three points. It would be a very simple thing to make a first-rate Act for Scotland; and the fish would be so numerous that we would never see them above 10 *d.* or 1 *s.* a lb., even in spring. My father fished all his lifetime in the Tay, and during the first of his fishing, they sold salmon like sheep, by the score, 20 shillings for 21 salmon, large and small, as they came; and there was more money made at that time than there is now at 2 *s.* a lb., because we are killing the goose that lays the golden eggs.

894. *Lord Lovat.*] Would you have any penalties for a person having a spent fish in his possession in the season?

Yes; in the fishing season as well as the close time.

895. *Chairman.*] Looking at the facilities of communication with London, do you think that an increase of breeding salmon would bring salmon down to the price of which you have just spoken?

I am certain if you give us right laws it will bring salmon down to a shilling a pound at the very dearest.

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896. Viscount *Hutchinson*.] That is the present price, is it not?

It is much down now; but the rest of the season, February and March, it sells about 2 s. 3 d., 2 s. 6 d. and 3 s. a pound.

897. Lord *Polwarth*.] Would you propose to have a Fishery Board to regulate the rivers?

No; keep away a Board for any sake.

898. Who would prosecute in the event of poaching?

The way we do it in Scotland is this,—if there is a poacher caught on a river the proprietor prosecutes. These Fishery Boards do a thousand times more harm than good; they know nothing about the natural history of the salmon, and they go and speak a parcel of nonsense. Ireland is all knocked to pieces by the Fishery Board. If we have not a general close time and open time we never can put down poaching. If a river is left open in Scotland, poachers will go and catch fish, and send them to market in the name of that river.

899. If poaching were carried on to a considerable extent in the small streams during the season, who would prosecute the poachers?

If it is in your river you prosecute yourself.

900. On the small streams where the proprietor never sees a fish during the black season, do you expect that he will prosecute poachers at a great expense, and incur much odium?

They have a very good way on the Tay. There is what they call a superintendent appointed by all the proprietors of salmon fishings in the county, and this superintendent puts on river watchers, and he sees that justice is done to the protection of the river; he does not get a very large salary, perhaps not above 100 l. a year, and is a person who knows well the nature and habits of the fish, and he knows what to do; all the prosecutions are raised by him in the county of Perth, on the Tay, and on all tributaries of the Tay.

901. Viscount *Hutchinson*.] With respect to the price of salmon, have you seen Mr. Jopp's pamphlet relating to the Dee and the Don fishings?

I have.

902. Mr. Jopp gives, at page 5 of his pamphlet, a table of the average price of salmon, which I suppose includes the salmon from these fishings, from 1834 to 1859, and I find that the highest price stated in that table is the price in 1851, 1 s. 0½ d. a lb., the average price for the whole year; from your experience of the Sutherland fisheries, do you consider that to be a fair statement?

I believe that that is a fair statement, but that takes in the summer season when salmon in London, sold wholesale, only brings about 6 d. a lb.; in the early part of the season the fish are high, and at this season; in the month of June, the price in London is about 1 s. 4 d., and perhaps in a fortnight there comes to be a throng of fish, and the price may be down to 10 d., and so on, according to the supply, whereas in the spring time the fish will bring something about from 2 s. to 3 s. a lb.

903. I suppose one of the reasons why you recommend that the old close time should be restored, and that the fishing should commence upon the 10th of December is, because by that means the fish that you would take at that early period of the season would bear a much higher price?

Yes; there is another thing, these fish which we allow to go up the river at that time are lost, both to the proprietors of the fishings and the public, because they lie in the river and get foul, and return to the sea unspawned; they do not even spawn before they go down; no doubt they will return again, but they have enemies at sea to encounter at the time they are away.

904. Has that fact been ascertained by careful observation of the habits of the fish, or is it merely a suggestion?

It is no suggestion, but the result of careful experiments.

905. Lord *Polwarth*.] Is this description of fish numerous during the winter?

There is a good deal of them; in my first fishings before the Home Drummond Act, we considered from the 10th of December to the 1st of February better than from the 1st of February to the 1st of April.

906. Lord

906. Lord *Lovat*.] That is not the case in all rivers, but in some particular rivers, I suppose?

I think there is some of them in all rivers; in those rivers that clean fish do not come into till about April they cannot be got; in what we call early rivers you will get those fish.

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907. Viscount *Hutchinson*.] Am I to understand you to state that in those rivers in which there is this early run of fish you consider the fishing from the 10th of December to the 1st of February to be better than the fishing from the 1st of February to the 1st of April?

Yes.

908. Does that mean that the fish are more numerous or that the value of the fish is greater?

The number of large salmon is greater.

909. With respect to the habits of this early run of fish, the Committee have been informed by other witnesses that the purpose for which the salmon seek the river is for spawning; from an answer that you gave to a question that I asked you a few minutes ago, I understand that you believe that this early run of fish do not spawn; can you suggest any reason why this fish should seek the river at that early period of the season, when, according to your notion, they do not seek the river for the purpose of spawning?

The early fish get so reduced, there is not an appearance of spawn in them; the spawn does not increase in the river; our principal breeders will be from about July to September; they come immediately from the sea, with the sea lice upon them; but if you cut up one of these fish you will find the ova nearly full-grown before they leave the sea; it grows there, and when they go to the river, they get lean. It is natural to the fish when they lie in the fresh water for a week or two to get lean, dark and useless. In all the early fish that we get (and you will get salmon in March), if you cut them up, there is small roe, about the size of pin's heads; those fish come immediately from the sea; but, again, in the latter end of July and the beginning of August, if you cut them up, you have the ova full-grown, so that they go and lie in the rivers for a certain time, and are ready to go to the spawning beds.

910. Lord *Colville* of Culross.] Where do you suppose that those large salmon go between the 10th of December and the opening of the season, when they return to the sea again?

We have got them during the summer time, exactly when the cruive was open.

911. As kelts?

Not as kelts, as full fish never spawned.

912. Bagots?

Yes.

913. *Chairman*.] Is there any other statement that you wish to make?

I do not recollect anything. I have mentioned the Bill that would be suitable for Scotland, and I hope your Lordships will take that into consideration; and if we are going to get a Bill at all, let us get one worth the taking, or we shall see an end to the salmon.

914. Earl *Innes*.] In reality the close time that you would fix for net fishing would exceed very little above three months?

There are salmon spawning after the 10th of December, but at the places where the salmon spawn no net fisher goes to fish, and no rod fisher goes to fish, because it is all on the shallows. Neither net or rod fishers will go to those fords where the salmon are spawning, unless poachers go with a spear.

915. A great many of these heavy fish going up would be drawn on shore; is not there a risk of these bagots not being put in again if they are knocked on the head?

That might require looking after, because fishers are very ready to do the like of these things in some places.

Mr. A. Young.
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916. Lord *Polwarth.*] What close time would you propose?

From the 26th of August to the 10th of December; and the reason why I propose that so confidently is from my experience, because I have fished under both the laws. I fished from 1814 to 1828, when we had the good old laws and plenty of salmon, and I have fished from 1828 up to this time, when we have nothing but starvation.

The Witness is directed to withdraw.

MR. WILLIAM DUNBAR, is called in, and examined.

Mr. W. Dunbar.

917. *Chairman.*] I BELIEVE you are the lessee of the salmon fisheries in the Thurso river and bay?

I am.

918. Have you been the lessee of them for some years?

Yes.

919. Have you found any great difference in the take of salmon now to what it was when you first became lessee?

When I first became lessee, the salmon fishing was totally done. The proprietor fished it for two or three years, and I believe he made nothing of it; in fact, it did not pay the expenses. That was his own statement.

920. What steps did you take to improve the condition of the fishing?

I took my lease of Sir George Sinclair; first, of the river, upon the condition that there were no fixed nets allowed in the sea, so far as his property went. After continuing that for two or three years, Sir George still fished with the net and coble in the sea, and I then took the lease with the sea fishings along with it.

921. How do you fish it?

I have removed the cruives altogether, and allow the fish to get up the river. I let it for angling during the first four months; but after the bag net fishers commence (they cannot put in their nets on a stormy coast till the 21st of May or the 1st of June), there is scarcely any fish come up the river. They are caught in the bag nets unless there is a very high flood.

922. How do you take the fish yourself?

We take them with net and coble.

923. Lord *Polwarth.*] To whom do the bag nets belong?

To the different proprietors of the lands opposite. Mr. Trail is one, and Mr. Sinclair of Freswick is another, and Mr. Sinclair of Forss is another; and there are one or two other proprietors who have bag nets. I know all the fishing-stations wherever a bag net is put in.

924. *Chairman.*] Notwithstanding the existence of those stake and bag nets has the take of salmon increased?

Yes; the take of salmon has increased. We do not kill any grilse at all, scarcely, because they are not allowed to go up. The salmon are killed early in the season; but as soon as the grilse come, all the bag nets are put on, and that prevents them getting up the river.

925. Lord *Polwarth.*] Is it an estuary?

No. It is a large round bay. There is a small estuary.

926. Does one side of the bay belong to Sir George Sinclair?

Yes; just opposite his property.

927. Have you taken that side?

We fish upon that side.

928. The other side belongs to other proprietors?

Yes; and to the east also belongs to other proprietors.

929. They

929. They fish with fixed nets?

Yes.

Mr. W. Dunbar.

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930. When are the fixed nets put in?

They are put in as soon as the weather will permit. In some seasons, about the 15th of May, the 26th of May, and the 1st of June.

931. From that date, you see but few fish go up the river?

So few, that we do not think it worth while to angle; we give it up.

932. Do you use your weir shot nets during that period?

We use the weir shot nets during that period; at any time when the weather permits.

933. Lord *Lovat*.] In the bay?

Yes; not in the river.

934. Lord *Polwarth*.] Previously to putting in the bag nets, do you use your weir shot nets?

Yes; in the spring; when there is a good day.

935. Do you get any fish?

Yes; when the weather is favourable.

936. That is upon the sea coast; quite beyond the river?

Yes; quite beyond the river; there are many places beyond the river where weir shot nets can be used to advantage, and in fact were used before bag nets were ever known, and a great many fish were killed; I believe, in many instances, the rents were as high then as they get now for the bag nets.

937. *Chairman*.] Do you employ that mode of fishing by net and coble, rather than bag and stake nets, because you believe it to be more profitable, or because you think it more advantageous to the river fisheries?

Because it is more advantageous to the river fisheries.

938. If you were not concerned in the river fisheries would you still be content to forego the use of the bag and stake nets, and fish by means of the net and coble?

I do not know whether I should be content, if I was only the lessee of the sea coast parts of the fisheries, because some parts of them would not fish at all with the net and coble. They have bag nets where it was not fished till lately, and there is one fishery that Captain Carnaby rents for 12 *l.* a year, that is three miles from the mouth of the river. The property belongs to Sir John Gordon Sinclair, and he killed last year more fish for that small rental than I killed for 650 *l.*, and obstructed the fish coming round the point.

939. Lord *Polwarth*.] Is that fishery at a rocky point?

Yes.

940. You can only fish with a weir shot net when you have sand?

Where there is a smooth bottom.

941. Lord *Innes*.] Is the bag net which you have described within the river, or out on the coast?

Out on the coast.

942. Lord *Colville* of Culross.] I suppose you have always a good supply of salmon about the coast there, because the fish making for the coast of Scotland strike the coast first near the Thurso?

I do not know; I believe every river has its own peculiar fish. They do not go far away.

943. That is the first coast that fish coming from the north must strike?

Yes.

944. Do not you catch a great many fish working their way south, as well as your own?

I am not aware of it; I believe we catch those coming to our own peculiar river.

Mr. W. Dunbar. 945. Lord *Polwarth.*] You mean fish that were bred in the river, and are making for the river?
 5th June 1860. Yes.

946. *Chairman.*] Before you became the lessee of the Thurso fishings, were you lessee of fishings under the Duke of Sutherland?

I was lessee of the Inver and Kirkaig. Mr. Hogarth had a lease of them under the Duke of Sutherland for a number of years. When he first took them, he got 43,000 salmon, and the last year when he dropped his lease he took 1,300 salmon as the whole produce of those rivers. The first year I took them, I took 27 fish altogether; so totally were the rivers ruined by the fixtures.

947. How had Mr. Hogarth fished?
 By bag nets all round the coast.

948. Lord *Polwarth.*] Do you think that these fixed nets may be improved and carried out to a greater extent?

Yes, you may put one after another for miles out to sea, if the tide is not too strong.

949. Lord *Colville* of Culross.] As you came up to London, between Aberdeen and Stonehaven, did you remark the bag and stake nets?
 Yes.

950. Do not you think the salmon will be exterminated on that coast?

Yes. I also know the Rivers Dee and Don. I was born upon the banks of the Spey, and have known it for the last 35 years intimately. I know that river from the top to the bottom, and when I knew it first it was an extraordinary good salmon river; but ultimately, in Mr. Hogarth's time, it got down to a very small portion, through the fixtures.

951. Are the fixtures on the coast of Caithness as numerous as they are on the coast of Aberdeen?

Yes, every bit; they put the fixtures wherever the tide admits.

952. Lord *Lovat.*] All along the coast?

Yes; when you get to Wick there are a few there, but the tides are so strong coming down through the Pentland Firth, that no fixed nets can stand it; it is only when the tide is running away in the bays, that the fixed nets will stand.

953. Viscount *Hutchinson.*] Will you describe the position of the Inver river?

The Inver comes into a loch called Loch Inver.

954. Is that on the west coast of Scotland?

Yes, about three miles, where it borders on the county of Ross; the River Kirkaig is the boundary betwixt Ross and Sutherland.

955. *Chairman.*] Do you think a general Act for the regulation of salmon fisheries would be beneficial?

There is no question of it.

956. What should be the main provisions of such a Bill, in your opinion?
 I should like to see the total abolition of every sort of fixture.

957. Including cruives?

Yes; I had cruives, which I totally abolished. I have taken the Rivers Langwell and Berriedale from his Grace the Duke of Portland, and I have taken off the cruives there which have been fished for the last 100 years.

958. Duke of *Richmond.*] Is there any proprietor above; not the Duke of Portland?

There is one.

959. A small one?

No, he has a large portion of the river; Sir Ralph Anstruther is the proprietor.

960. *Chairman.*]

960. *Chairman.*] With regard to the close time, what provision would you suggest? *Mr. W. Dunbar.*

I would suggest an early opening, and an early closing. 5th June 1860.

961. What dates would you assign to the one and to the other?

The 10th of December would be a good time for opening, and the 26th of August for closing. My reason is, that there are many rivers, the Thurso for example, which are early rivers, and which have large fish going up all the winter; fish, which are barren fish. I do not know why they go up, but they are altogether barren, and they are the finest fish that can be, and by Act of Parliament we are not allowed to kill them till the first of February; they go up into the river, and become brown and copper coloured, though they have not spawned.

962. *Earl Innes.*] How do you prove that they are barren fish?

I have examined many of them.

963. *Viscount Hutchinson.*] Have they no rudiment of spawn in them?

Not the least appearance.

964. *Chairman.*] Does your knowledge of the habits of salmon enable you to say what induces them to seek the fresh water, if they do not come for the purpose of spawning?

I do not know; that is a question that no person can answer. I have examined hundreds of these fish when we have killed them as they return to sea in the month of March.

965. *Duke of Richmond.*] Are the majority of those fish male or female?

They are both male and female; the majority are females I think, but I never saw the least appearance of spawn in them. I killed one the other day that returned from the river, and got down as far as the cruive, 25 lbs. weight; it was a full fish, and there was not the least appearance of any spawn; it is easy to know a fish that has spawned because the vent protrudes, they are quite coppery, and their heads are like a salmon you would kill in the month of September.

966. *Lord Colville of Culross.*] Are those fish in good condition for eating, without any spawn in them?

They are in splendid condition; they are the finest fish that could be killed.

967. *Chairman.*] Are stake and bag nets in your opinion an expensive mode of fishing?

They are a very expensive mode of fishing.

968. *Duke of Richmond.*] Does not the expense of the stake and bag nets depend a great deal upon the coast where they are placed?

They are expensive in any way; the bags are expensive, and if they are placed on the open coast, they require stronger materials and stronger anchors, and even then, they are sometimes knocked to pieces.

969. *Chairman.*] The wear and tear is very great?

Yes.

970. So that the prohibition of the bag and stake nets would not be so detrimental to the interest of the grantees of those fisheries, as might at first be supposed?

I am of opinion, that ultimately it would be for the benefit of the grantees that all fixed nets should be done away with, excepting, of course, those grantees who have bag nets where no other net can be used, where bag nets have been introduced where no fishings were at all formerly.

971. *Lord Lovat.*] Are not a great many fish destroyed in the bag nets in stormy weather and knocked to pieces, so that they are totally unfit for market?

I have known 105 salmon caught in a bag net, and a storm has come on, and knocked them ashore, and before they got to the shore they were tumbled about and rendered perfectly rotten and useless. That is very frequently the case.

972. *Lord Colville of Culross.*] Are a great many salmon killed in the nets by seals?

(135. 3.)

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They

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They are ; I have often got my nets destroyed entirely by them ; they not only destroy the nets, but allow every fish in them to get out. When they make a hole for one fish to go out, the whole of the fish get out.

973. Duke of *Richmond*.] You say that you know something about the Spey. Were not the stake nets taken away in the year 1852, from the mouth of the Spey ?

I believe they were by his Grace the Duke of Richmond.

974. Do you happen to know whether there were not some stake nets left ?

I have not been there since, but I heard that there were one or two. I have been to the fishings upon the Spey several times. I knew Sir George Grant, and I recollect very well about 15 or 20 years ago, I was one of a party who were out under his instructions, netting some pools in the month of April, and he gave instructions to kill every fish that came in ; we killed a number of kelts, and we destroyed every one of them ; in fact there was scarcely a clean salmon at all killed ; every one of them was given away to the poor people round about. I said to Sir George, that I was very much surprised that he should allow the kelts to be killed in that way, that they could be no food for any person whatever ; and he said, " They are all fish that come to the net ; Hogarth will not allow a single fish to come up that he can prevent, and we must just use him the same way that he uses us."

975. Do not you think that it is a very good plan to allow the upper proprietors to fish with the rod after the close time for the nets, in order that they may have some inducement to preserve the fish ?

Yes, I would do so ; and I would lay on a very weighty penalty for killing kelts or foul fish at any time.

976. Lord *Colville* of Culross.] You have stated that the Spey had fallen off very much about the year 1851 or 1852 ?

I believe it was perfectly ruined.

977. To what do you attribute that ?

Nothing but the fixtures. I wrote a letter to " Bell's Life" in 1851 or 1852, advocating the abolition of all fixtures, from cruives downwards ; that is eight or nine years ago.

978. Viscount *Hutchinson*.] Do not you think the improvement on the Spey is to a certain extent to be attributed to the improved protection of the upper waters ?

There is no question of it ; if you do not protect the upper waters, it is of no use.

979. Lord *Colville* of Culross.] Do you consider that the waters on the Spey are better protected than they were ?

In the spring of this year a couple of fellows with cross lines killed 20 kelts in one day ; that was above Ballindalloch, where Mr. Williams is the owner of the fishing. There is another system they have upon the Spey of ottering ; I have seen them kill lots of kelts ; three or four at a time ; they are so weak that they cannot break away from the tackle.

980. Duke of *Richmond*.] Is not there a bird on the tributaries of the Spey which is supposed to live entirely upon salmon spawn ?

There is the ouzel. I have dissected many of them, and I scarcely ever saw any spawn in them ; they feed upon the aquatic insects that are found among the stones.

981. Is there not a prejudice to that effect ?

There is a prejudice ; but it is very little harm they do, I am sure.

982. Lord *Colville* of Culross.] Are there many pike in the Spey ?

Yes, in the dead water above Granton, and all the way down to Ballindalloch, and again upon the Kinsara property ; there are two or three lochs in connexion with the river where there are a great number of pike ; you will see them sunning themselves, and they must be very injurious to the young fry.

983. *Chairman*.] You have recommended the prohibition of the use of stake and

and bag nets; do you think that would not be inconsistent with existing legal rights?

I do not think so. I do not know as to stake nets, but bag nets have no right at all; it is only transferring the property of the river proprietors to the coast fisheries; there is no right and no title at all.

984. Viscount *Hutchinson*.] Are you not aware that there have been several grants of coast salmon fisheries from the Crown?

Yes, I am perfectly aware of that; but those were only grants of fisheries to be fished with the net and coble, not with fixtures.

985. Do you mean that at the time those grants were made, fishing by means of stake and bag nets was unknown?

It was unknown.

986. Is there anything upon the face of the grants to prohibit the grantees from using stake and bag nets?

I do not know that there is anything on the face of the grants to prohibit stake and bag nets; but I think, as a general rule, every person interested would have a fairer chance if they were prohibited altogether.

987. Lord *Cobville* of Culross.] I believe you know a great deal of cruives, though there are none in Sutherlandshire; do you consider that they are always fairly worked?

I have examined many cruives, but I never saw any of them fairly worked; it is the propensity of all people who have got fishings to kill as many fish as they can.

988. Is it not competent for every person who may suspect that a cruive is not opened for the Sunday slap to go and inspect that cruive?

Yes.

989. No impediment would be thrown in his way?

I do not think that a person who is not interested can go to inspect them; he may be prosecuted for trespass; he has no right to trespass upon another man's property. I do not know what the Duke of Richmond does now; but I have examined the cruive which Mr. Hogarth was the proprietor of, and not a fish could have passed it; it was constructed in such a way that not a fish could pass, unless there was a tremendously high flood.

990. They are not fairly worked, you think, in a great many rivers?

No; I know cruives in several rivers, and they are just fished in the same way, that every one tries to get as many as he can.

991. What is the penalty for a cruive not being properly administered?

I cannot call to mind.

992. Do not you think it would be a good thing to increase that penalty, supposing the cruives to continue in existence?

There should be a very weighty penalty if they are to be allowed at all; unless there is a very weighty penalty, a man may get a lot of fish, as many as will pay ten penalties. I know perfectly well if I put a cruive in the Thurso in the spring of the year, I could sweep them all off, and what is a penalty of 5 *l.* when I might get 50 *l.* or 150 *l.* worth of salmon.

993. Supposing a system of police is established to look after these matters, who would be the proper party to do that?

I think putting a weighty penalty, and enforcing the law, would be the only thing, and let the river proprietors contribute to the expense.

994. The upper proprietors would not be likely to contribute, unless they had a better share of sport than they have now, would they?

Indeed they would not, and I would excuse them. Upon the River Thurso I have artificial ponds, and have had for some years, for the purpose of increasing the fish; and then these men, who have no right at all, put in their bag nets, and catch the fish which I have reared with the greatest care in the world, before they come up to me; they are taken not near the river, because the fish hug the coast until they get to the river's mouth.

995. *Chairman*.] Has the stock of breeding fish largely increased?

(135. s.)

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Yes,

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Yes, very much ; I now kill more fish with the rod. We average about 700 fish killed with the rod, and perhaps 700 in the lake at the top of the river ; there are still hundreds in different pools in the river ; we kill three times the spring fish in the river, and yet we kill fewer summer fish or grilse, for this very reason, that they are not allowed to come up to the mouth of the river.

996. That quantity would be still more largely increased if the stake and bag nets in the Bay were altogether withdrawn ?

They would ; and those places where they used to fish with the net and coble would have their fair share of them again. - Mr. Traill, who is a Member of the House of Commons, has a fishing, which used to be fished upon the sand with the net and coble at very nearly as much rent as he gets with the bag nets. There is Mr. Sinclair, of Forss, he is under the belief, just now, that it would ruin his fishings ; I offered to take the fishings at the same rent that they are now paying, and never put a bag net on.

997. *Earl Innes.*] What is your chief spawning month in the Thurso ?
 From about the 10th of October to the 10th of November.

998. Have you no fish spawning in December ?

Very few indeed ; though we have fish, they are in a different place ; they are clean fish, congregated in the pools, while the spawning fish are in the shallows.

999. *Lord Lovat.*] While the fish are in the spawning beds they will not rise to a fly, I believe ?

No ; I have known them take a bait readily, but never rise to a fly.

1000. *Duke of Richmond.*] Your opinion is, that the abolition of stake nets and bag nets, the removal of cruives, the shortening of the close time, and the better protection of the rivers, would be advantageous to the breed of salmon in Scotland ?

There is not a doubt of it, I think. I know several other rivers. I knew a river some years ago called the River Nairn ; I used to kill salmon as far as Cawdor, and as far as Daviot, but not a single fish gets up through the bag and stake nets being round the coast. At Cawdor, and below Kilravock, I have seen lots of nice salmon killed, and upon the property of Cawdor. I believe that river could be made as productive a little river as there is in the north of Scotland, if the fixtures were taken away from the coast.

1001. *Earl Cawdor.*] Is not there a mill-dam near the town ?

Yes ; but, according to the law which now exists, they cannot divert all the water from its proper source ; that can be easily put down.

1002. *Chairman.*] Do you think it would be desirable to establish a general Commission or Board with power to enforce the law, and to make regulations according to the circumstances of particular rivers ?

I think there should be a law the same as there is in penal cases in Scotland, for a public prosecutor to prosecute ; but I do not think it would serve any good purpose to have a Commission, the same as they have in Ireland. I was in Ireland last year myself on a great many of the rivers, and they complained that the Commission did not work well.

1003. *Viscount Hutchinson.*] If you began fishing on the 10th of December, would not you be in danger of killing a great many kelts ?

No ; we would turn them in again ; we take 1,000 a year on an average on the upper fisheries with the fly, but I never saw a single one injured or killed upon the Thurso.

1004. Is there any law in Scotland to prevent the use of the gaff for taking fish ?

I do not believe that there is any existing law, but we do not allow them to gaff ; there is a law with regard to the Tweed. I have seen many fish gaffed that were not in the least injured, if it goes through the back without going through the bone.

1005. *Duke of Richmond.*] Do you think that a fish that has been played with on a line for half an hour will spawn that year much ?

I have

I have known cases where we have taken ashore the same kelt a dozen times ; they seem to forget it immediately, and we marked them and put them back.

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1006. Lord *Polwarth*.] You mean caught by the rod and line ?

Yes ; we have marked them, and put them in, and a few days afterwards they were taken again. A curious thing happened last year. A gentleman was fishing with rod and line, and he hooked what he called a large salmon ; he was sure that it was 15 or 20 lbs. weight ; he lost his fly and a piece of his line also ; he knew the fly that he lost ; and another gentleman fishing in the same pool about a week afterwards caught the same fish, which turned out to be a kelt, with the first gentleman's fly in his mouth.

1007. Viscount *Hutchinson*.] If you allow the fishing to commence on the 10th of December, would you restrict that to net fishing in the tide-way, and not allow angling ?

I would put a weighty penalty for destroying a kelt.

1008. Practically, how would you carry that penalty into effect ; if a gentleman goes to fish on the 10th of December, probably for one fresh run fish that he would catch with his rod and line, he would catch 15 or 20 kelts ?

He would take them ashore, and put them in again ; no gentleman would kill them.

1009. Lord *Polwarth*.] When a fish swallows the fly, would it be fit to be put in again ?

They sometimes swallow the fly down the gills, and they are dead then, but they very seldom go so far as that ; those are things you cannot help.

1010. Then you could not inflict a penalty ?

No.

1011. Lord *Colville* of Culross.] In the small rivers of Sutherlandshire, do not you consider that the sheep-washing is very destructive to the fish ?

I do not think it is ; it is generally after the smoults are gone. The smoults are all down now, and the sheep-washing does not commence till about this time, the 1st of June. The sheep-washing makes the trout sick.

1012. But does not kill them ?

I have seen it in very small burns kill lots of trout.

1013. *Chairman*.] Are there any weirs or mill-dams on your rivers that impede the fish ?

Yes.

1014. Would you propose any regulation with respect to them ?

I would have a slap opened, with about two or three feet of water running, for the salmon to get up, and the young fish to go down.

1015. Duke of *Richmond*.] Do not the poachers take the smoults, very much when they are coming down the rivers ?

They used to do so very much, but we have put a complete stop to that.

1016. *Chairman*.] You have said that you would require an opening to be constructed in the mill-dams ; could that be done without interfering with the supply of water to the mill ?

Quite consistently ; a three feet or two feet opening would take the smoults down at any time.

1017. Lord *Lovat*.] The smoults could get through the cruive at any time ?

Yes ; but in the mill-dams there should be an opening for the smoults to get down. The great thing is to allow the smoults to get through a proper place, and not let them through the mill lead, where they are destroyed.

1018. Viscount *Hutchinson*.] Do not you find in your rivers that the salmon congregate in great numbers in the tail races of mills, and are very liable to be taken at night by poachers ?

They go up there ; it depends upon the tide ; if the water is strong, and there is plenty of water, they do not go into the mill race at all ; they go into the body of the water.

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1019. *Lord Polwarth.*] They lie in the deep holes?

Yes; I know on the River Thurso there are very few that go there; they have an opportunity of going up.

1020. *Lord Colville of Culross.*] Supposing it were settled that stake and bag nets are to be continued on the coast, do you think it would be possible to enforce a Sunday slap in them as well as in cruives?

Quite easy and quite practicable; but that would do no good, if you do not remove them from the mouths of the rivers.

1021. It would do some good if they were removed for certain hours?

Yes.

1022. The evidence given before this Committee has been to the contrary, that they could not give a slap in bag nets?

That is all nonsense; it can be done in a moment.

1023. *Lord Polwarth.*] How can the slap be given with respect to bag nets?

If you go out to them at all it can be done. If it is a very stormy evening, you could not do it perhaps; the only way then you could do it would be with a string.

1024. You have stated that bag nets may be run out for half a mile?

Yes; they can be run out if the tide is not too strong.

1025. Could those bag nets be taken up on Saturday, so as to allow a free run for the fish along the coast?

Yes; you have nothing to do but untwist the line, and they will all float on the surface, and cannot take the fish.

1026. *Lord Colville of Culross.*] If the proprietors of bag and stake nets held their fishings on the condition that there should be a Sunday slap, do not you think they would find a means of arranging it?

No question about it.

1027. *Lord Lovat.*] How could it be ascertained that the bag nets were open?

You could see them from the shore in a moment; the stakes, instead of standing upright when the string was loosed, would all float upon the surface.

1028. *Viscount Hutchinson.*] With respect to the close time, do you think, considering the fact that the habits of salmon differ in one river from the habits of the same fish in another, that it would be advisable that the power should be given to a public Board in Scotland to fix the close time of each river with reference to the peculiar habits of the fish in that river, or do you think that it would be preferable to have one general close time for the whole of the country?

One general time would do just as well; there would be no harm in the other; there are many rivers on the west coast that the salmon do not go up till the month of June, and if there is no salmon, it is of no use fishing for them.

1029. *Lord Polwarth.*] Would the markets, being opened at different times, be an objection to separate close times?

Not at all, if you enforce a weighty penalty for killing kelts.

1030. When clean fish from one river could be legally sold, might there not be poaching in another river, and fish sold under the name of the river that is open?

It does not matter if they are clean fish, if there are different laws made for different rivers. If you make one law to suit all rivers, it amounts to the same thing. Of course you would not have one law, for instance, to open upon the 10th of December upon the River Thurso, because it is a very early river, and another law making the opening a few days later upon the next river because it is a few days later; it is of no use trying to kill the clean salmon but when they are there.

1031. *Chairman.*] Have you any further observations to make, or any further suggestions to offer to the Committee?

I know

I know a great number of rivers in Norway. I have been there several times, and persons have told me that since the introduction of fixed nets, those rivers have been injured. There are the Topdal, the Dorridal, the Lyngdal, the Queensdal and the Romsdal; those rivers have fallen off enormously since the introduction of fixed nets round the points. With regard to cruives upon the small rivers, the rivers Berriedale and Langwell have been fished for 100 years, and they are falling off lately. I have suggested to the Duke of Portland that I believe it would be for their benefit to abolish the cruives entirely. The Duke of Portland is the sole proprietor of one of those rivers, and he has perhaps more than half the other. The upper proprietors would reap a great benefit for angling from the abolition of the cruives, and, having that advantage, they would protect the river at their own expense, so that what was lost on the one side would be gained on the other by the great additional protection that would be given to the fish. I believe, generally speaking, where there are conflicting interests in any river, the cruives should be entirely abolished; but where the whole river belongs to a single individual, as rivers belong to the Duke of Sutherland in many instances, it is a question for him to arrange with his tenants how the river should be fished, whether he may allow cruives or bag nets, or any other net outside.

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1032. Duke of *Richmond*.] Are you aware that a person in possession of an entailed estate on which there is a cruive, has not the power of removing the cruive?

Perhaps he has not.

The Witness is directed to withdraw.

Adjourned till Friday next, at One o'clock.

Die Veneris, 8^o Junii 1860.

LORDS PRESENT:

Duke of RICHMOND.
LORD STEWARD.
Earl CAWDOR.
Earl INNES.
Viscount HUTCHINSON.

Lord COLVILLE of Culross.
Lord POLWARTH.
Lord LOVAT.
Lord WROTTESLEY.
Lord STANLEY of Alderley.

THE LORD STEWARD in the Chair.

THE MARQUESS OF AILSA, examined :

Evidence on the
Salmon Fisheries
(Scotland).

*The Marquess of
Ailsa.*

8th June 1860.

1033. *Chairman.*] I BELIEVE you are the proprietor of salmon fisheries in the Doon ?

I am.

1034. Lord *Colville* of Culross.] You are the proprietor of the sea fishings at its mouth as well as two cruives, and the greater proportion of the cruives in Ayrshire ?

Yes.

1035. What is the length of the river Doon ?

About 25 miles.

1036. What has been the condition of the fishings on that river for some years past ?

For the last 10 years they have shown a tendency to improve, but for a considerable time before they were very low indeed ; very few fish were taken.

1037. Did not you enter into an agreement in 1849 with the upper heritors on the river, and what were the terms and the result of that agreement ?

I entered into an agreement with the upper heritors in 1849. The agreement was, that the stake nets at the mouth of the river should be moved further away, the mesh of them enlarged, and that all netting should be done away with on the 10th of July 1849, but in the succeeding year there was to be no netting, by stake net or any other means, after the 10th of August.

1038. To what distance were the stake nets removed from the mouth of the river ?

I think two thousand yards.

1039. What did you do with respect to your cruives ?

I never worked them. In fact, they had not been in force for some considerable time. I cannot say when they were last used, but not since I have been in possession of that property.

1040. Have you the power to put the cruives in operation whenever you choose ?

I consider that I have ; and I believe it is not disputed.

1041. Do you hold those cruives by charter ?

By charter.

1042. Why was the agreement, which expired in 1859, not renewed ?

In consequence of some of the heritors refusing to adhere to its provisions.

(135.4.)

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1043. In

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1043. In what respect?

They refused to stop netting. I omitted to say that when I undertook not to net at the mouth of the river, and to remove the stake nets, the upper heritors agreed on their part to abstain from net fishing entirely. An agreement was entered into for ten years, with liberty to all parties to withdraw at the end of ten years, and some of the upper heritors then refused to discontinue netting.

1044. As they did not renew the agreement, you conceive that you were at liberty to put in the cruives, and revert to the old system of netting?

Certainly.

1045. Were not some gentlemen appointed by the heritors in 1855 to inspect and report upon the River Doon, and the dam dykes, mills, &c., upon it?

There were. The persons who were appointed were Mr. Shaw, of Drumlanrig, the Duke of Buccleugh's man, and Mr. Leslie, a civil engineer, of Edinburgh. I hold in my hand copies of the reports which they drew up.

1046. Can you state briefly what was the result of those reports?

They recommended chiefly that part of the provisions of the agreement that had been entered into for removing the stake nets, &c., as I have said; but they also recommended that all dykes should have proper slaps made in them to let the fish up, and that there should be provision made to prevent the fish getting into the leads and sluices of the mills. None of those recommendations have been carried out. They also recommend very strongly different things; amongst other things, that no deleterious matter is to be allowed to escape into the river from mills, &c.

1047. Are there any paper mills on the Doon?

I think not.

1048. With respect to the dam dykes in the River Doon, are they furnished with proper slaps?

No, they are not. There is one very large dam dyke on the River Doon that has no slap; and not only has it no slap, but the dam dyke has been heightened within the last year, and an old slap which existed has been filled up.

1049. Do you not consider that those mill-dams ought legally to be furnished with slaps?

I cannot speak of the legality of the subject; I am induced to believe that by the new Act all dam dykes that are now built are to be furnished with slaps, but that has no reference to the old dam dykes that were built before that Act came into force.

1050. Is it not your opinion in any future legislation that may take place with respect to salmon fisheries that proper slaps should be put into all dam dykes in rivers?

Certainly. I think it is of no use in such a river as the Doon withdrawing the stake nets and cruives, if dam dykes are to be allowed to exist as they are at present; it is impossible for the fish to get up. The fish come under the dams, and get weak, and after they have run into the river, they get lazy, so that when a spaight or head of water comes, they have not the will or strength to run the dykes, and they are at the mercy of all the poachers, and the miller and his men who choose to pull them out.

1051. Do you know any instance of the fish being assisted over those difficulties?

I do. I have been told of a miller taking the fish out in his hands, and lifting them over his dyke.

1052. Duke of *Richmond*.] Has your Lordship ever heard of facilities being given to salmon in their ascent of rivers in the nature of what are called ladders?

They are mentioned in this report, but I have never seen them.

1053. Did those gentlemen recommend that ladders should be used?

In such places where slaps could not be made; but I see that they recommend

mend slaps in preference. It is only in such places where slaps cannot be conveniently put that ladders are recommended.

The Marquess of Ailesa.

8th June 1860.

1054. Are there many tributaries to the Doon?

There are, but no considerable ones. The Doon itself comes out of Loch Doon, and the largest tributary that I can bring to my mind is very soon after it comes out of the loch.

1055. Whereabouts are the spawning beds on that river; are they above the dyke to which your Lordship has alluded, or below it?

All above, according to my belief.

1056. So that this dyke acts as a serious obstacle to any fish going up to the spawning beds?

No doubt it does.

1057. Lord Colville of Culross.] Is not Loch Doon a very fine loch, with a very large volume of water in it?

The loch is from seven to eight miles long, if I mistake not, and I think at the broadest part it is rather more than a mile broad.

1058. Is it not a very deep loch?

Very deep. The tributaries run into Loch Doon, where the fish go up to spawn. There is one with which I am acquainted, where the fish may be seen lying on the spawning beds above Loch Doon.

1059. Do you consider that most of the fish in that river spawn below Loch Doon, or in the loch?

I could not speak to that.

1060. Are there great difficulties attending the fish getting into that loch?

There is a very rapid outflow from the loch, but nothing to prevent the fish going up. I have frequently seen fish myself there.

1061. Do not the waters of the river come out of the loch through a tunnel?

There are two tunnels, the sizes of which are named in that report.

1062. Duke of Richmond.] Are those tunnels artificial tunnels, or natural tunnels?

They are artificial tunnels.

1063. Is there any river that runs into the lake?

There are burns that we call lanes running into the lake, and there is also water out of another lake flowing into it.

1064. Is that lake of considerable size?

It is a large lake also.

1065. Do the salmon go up as far as that lake?

I believe not; I cannot speak with certainty, but I think there is some obstacle in the water adjoining the two lochs which prevents them going up.

1066. Lord Lovat.] Is that high weir below the loch?

All the weirs are below the loch.

1067. How far is that high weir from the sea?

I think it is the fourth weir on the river.

1068. A mile or two up?

It is more than a mile or two up.

1069. Lord Colville of Culross.] Have you any suggestion to make to the Committee with a view to improve the salmon fisheries generally on the rivers and coasts of Ayrshire?

I cannot suggest anything further. Although the stake nets are mine, and the cruives are mine, I consider by their removal the fisheries would be very much improved; but at the same time I think it is no use taking out the cruives, or taking the stake nets away, if the fish are to be allowed to be caught at the dam dykes, which are more destructive to the fish, in my idea, than either the stake nets or the cruives.

1070. Duke of Richmond.] The chief value of the Doon is for rod fishing, is it not?

(135.4)

Q 2

No

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No doubt. It is not so valuable with regard to the quantity of fish as for the sport. The rental of my fishery at the mouth of the river was, at one time, 320 *l.*; then it dwindled down to 126 *l.*, and it has now, since that provision has been acted upon, risen to 240 *l.*

1071. Does your tenant let out the angling at the mouth of the river?

So far as I recollect he has the liberty to do so; but I do not consider that it would be any use to him, as the fish will seldom take a fly at the mouth of the river.

1072. *Earl Cawdor.*] At present the cruives upon the river prevent the ascent of the fish, except from Saturday night till Monday morning. Supposing the cruives were taken away, would not the fish have a free ascent during the night every day in the week?

So far as the cruives are concerned; but the dam dykes stop the fish, and they are quite as bad as the cruives.

1073. *Lord Colville of Culross.*] You have some knowledge of the working of stake nets: do you consider that it is possible, supposing stake nets should be continued, that a Sunday slap should be given in them?

I have but little knowledge of the working of stake nets; my knowledge is more immediately confined to bag nets; but I have no doubt that stake nets could be so managed that they could be withdrawn during the Saturday and Sunday without any very great labour.

1074. And bag nets also?

I should say so. All that is necessary is to take up the bag net, and then set the bag net again; that would occupy an hour or two.

1075. *Duke of Richmond.*] In a great many parts of Scotland, when the weather is stormy, is not it nearly impossible, or would it not be considered to be so, to lift up the bag nets and stake nets?

It is very frequently entirely impossible to go out to the bag nets. It very often happens to us that our boat cannot go to the bag net for two or three days.

1076. *Lord Stanley of Alderley.*] At the times when the weather is such as to allow you to go to the bag nets and stake nets, would it not be practicable to leave an opening in them for the purpose of giving the fish free access to the rivers?

I should say so certainly with regard to bag nets; and although I have not had great experience with stake nets, I cannot see the difficulty of doing the same with them.

1077. Has the Sunday slap been observed with regard to those bag and stake nets with which you are acquainted?

No; it has not been observed. I think it fair to explain that bag nets and stake nets with us are only in the sea, whereas the Sunday slap has reference merely to the rivers.

1078. Still the Sunday slap might be applied to sea fishings?

No doubt.

1079. *Chairman.*] Do you conceive the present close season to be well suited to the circumstances of the river with which you are connected?

Thoroughly, if, as during agreement with upper heritors, there is to be no netting after 10th of August.

1080. You would make no alteration?

I should stop netting, and not allow nets to be used after the 10th of August; but with regard to rod fishing, I think the close season is very good as it is.

1081. We are speaking principally of net fishing?

I should withdraw all nets on the 10th of August.

1082. What date would you fix for the opening of the fishing season?

The present opening of the fishing begins with us on the 1st of February; I have no reason to think that is a bad time; but I consider the increase of the fishing that there has been within the last 10 years, as shown by the rise of rent, is attributable to the nets having been withdrawn on the 10th of August, instead of the 14th of September.

1083. You

1083. You think it would not be expedient to open the season earlier than the 1st of February?

I do not think there would be any good gained by it at present; very few fish are caught much before the end of February.

The Marquess of Ailou.

8th June 1860.

1084. It has been stated to this Committee that in some rivers a great quantity of fine fish is taken between the beginning of December and the beginning of February. As far as your Lordship's rivers are concerned, that is not the case?

No, that is not the case.

1085. Viscount *Hutchinson*.] Are many foul fish taken in the early part of February, when the net fishing commences?

I have no doubt there are; so many fish are going down the rivers.

1086. Lord *Stanley* of Alderley.] Do you think there would be any objection to allowing a longer period for rod fishing after the nets have been taken off?

I think not, if taken off on 10th of August; but I consider the present close time quite late enough for rod fishing.

1087. What is the time now during which rod fishing is allowed?

From the 1st of February to the 14th of September.

1088. Then from the 10th of August to the 14th of September, after the nets are taken off, you would still allow rod fishing to continue?

Yes.

1089. Lord *Colville* of Culross.] Although the Doon is not a very large river, and is called an angling river, is it not as large a river as any in that part of Scotland, and comprises fisheries as valuable as any on that coast?

I believe the Doon is considered the best salmon fishing river by a great deal in that part of Scotland.

1090. *Chairman*.] Has your Lordship any suggestions to offer to the consideration of the Committee for the improvement of the law in respect to salmon fisheries?

I cannot offer any other suggestions, and I think there can be no better suggestions than those which were contained in the agreement which I entered into with the upper heritors, with the exception that the dam dykes should all have proper slaps put into them; and that all sluices and mill leads should be so managed that the fish cannot get into them.

1091. Lord *Colville* of Culross.] You mean that the fish are carried into the mill wheel, and destroyed?

They are carried into the wheel, and destroyed. Unless there is a slap made, the fish get in, and cannot get out, and may be caught by the miller.

1092. *Chairman*.] Will your Lordship put in the two reports to which you have referred?

I will. (*The two reports were delivered in.*)

Vide Appendix.

MR. GEORGE RIDPATH is called in, and examined as follows:

1093. *Chairman*.] I BELIEVE you are a member of the firm of Forbes, Stuart, & Company, fish factors, in Lower Thames-street, London, and Billingsgate Market?

Mr. G. Ridpath.

I am.

1094. Are your firm the largest wholesale dealers in salmon in the London market?

I believe they are.

1095. How long have you been familiar with the trade?

For 45 years myself, seven of which were apprenticeship.

1096. Have you been in the habit of keeping returns of the number of boxes of salmon imported into the London market?

I have kept it myself for the greater part of the last seven or eight years; previously to that, it was kept by different persons in our firm. We had the same object in view, namely, to make it as correct as circumstances would admit.

(135. 4.)

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In

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In the earlier years, perhaps up to 1840 or 1845, sailing vessels and steam boats brought the fish, and copies were taken of the number of boxes in the manifests, and the arrivals; but for the last eight or ten years the statements have been taken from the waggons in the streets, which have brought the fish from the railways, and also from the vessels. Those are the data upon which this account has been taken. This account has been all along taken for our own private information, and not with a view of its ever being seen by anybody besides. From the circumstance of our having extensive contracts in Ireland for salmon, it was necessary that we should know the annual average value of salmon, and that is the reason we have continued to take it.

1097. Have you any objection to put in that statement?
None whatever.

The following Statement is delivered in :

STATEMENT, prepared by *George Ridpath*, of the Number of Boxes of SALMON received in *London* (112 lbs. each), for the last 26 Years.

—	Scotch.	Irish.	Dutch.	Norwegian.	Welsh.	Price.	TOTAL.
						s. d.	
1834 -	30,650	350	-	-	-	9 ½	31,000
1835 -	42,330	470	-	-	-	9	42,800
1836 -	24,570	430	-	-	-	10 ½	25,000
1837 -	32,300	400	-	-	-	10	32,700
1838 -	21,400	300	-	-	-	10 ½	22,300
1839 -	16,340	2,500	-	-	-	11	18,840
1840 -	15,160	4,574	-	-	-	11	19,734
1841 -	28,500	3,760	-	-	-	8 ½	32,260
1842 -	39,417	4,490	-	-	-	7 ½	43,907
1843 -	30,300	4,644	595	103	40	7 ½	35,682
1844 -	28,178	4,248	269	269	omitted	7 ½	32,964
1845 -	31,062	3,803	913	215	46	7 ½	36,039
1846 -	25,510	5,214	849	100	41	8 ½	31,714
1847 -	20,112	6,052	820	74	73	9 ½	26,840
1848 -	22,525	4,373	1,148	67	48	8 ½	28,161
1849 -	23,890	4,388	692	omitted	50	7 ½	28,820
1850 -	13,940	2,135	105	54	72	1 -	16,306
1851 -	11,593	4,141	203	212	40	1 -	16,189
1852 -	13,044	3,602	176	306	20	11	17,148
1853 -	10,485	5,052	401	1,208	20	10	26,166
1854 -	23,194	6,333	345	none	126	9 ½	30,000
1855 -	13,197	4,101	227	none	49	11 ½	22,584
1856 -	15,438	6,568	68	5	200	1 -	22,279
1857 -	18,554	4,904	622	none	220	11 ½	24,400
1858 -	21,564	6,429	973	19	499	10 ½	29,484
1859 -	15,630	4,855	922	none	260	1 -	21,667
26 years -	602,783	98,716	8,888	2,642	1,815	- -	714,794

1098. Have you the means of furnishing the Committee with any information as to the comparative amount of fish sent to London before 1834?
We have not.

1099. It appears, from the statement which you have put in, that the amount of salmon imported from Scotland fluctuates very greatly, rising from 30,650 boxes in 1834 to 42,330 in 1835, falling in 1836 to 24,570, and 15,160 in 1840, and rising in the two following years to 28,500 and 39,417, then declining to 11,593 in 1851, and rising to 23,194 in 1854, and again fluctuating greatly in the succeeding years; have you formed any opinion as to the causes of those fluctuations, and if so, will you be so good as to state it to the Committee?

I have never been able to form any opinion as to the cause of the comparative plentifulness or scarcity of salmon. I have heard opinions very often from practical men on every side of the question, but I really cannot say that I have any opinion of my own from what causes the fluctuations arise.

1100. Has

1100. Has the price of salmon risen during the last 20 years?

From this table a considerable rise would appear to have taken place within the last six or seven years. I attribute that to the superior quality of the fish from its coming by railway over the old system of transmission by sailing vessels and steam-boats, and also to the increased facility of sending salmon to the different parts of the country, and very probably to the increase of prosperity in the country generally.

Mr. G. Ridpath.

8th June 1860.

1101. Do you attribute the rise in the price of salmon in any degree to the increased wealth of the community, and there being a greater number of persons who are able to purchase it?

I think that that is very probably a considerable element in the increased value of salmon.

1102. Do you look upon price as a certain test of scarcity, or may it not be affected by other causes?

Scarcity when everything else is equal must certainly increase the value of salmon; but quality is a very considerable element in the value of salmon; and some years, when the fishings have been more plentiful in the north of Scotland than they have been in the south, that would affect unfavourably the average price of salmon. There is one particular year that I may point out, namely, 1854, when that had a considerable effect. I may also say that this statement of prices contains the price of salmon and of grilse conjointly; it is not the price of salmon only, and it omits Norwegian salmon altogether, of which we never have had any to sell. If a considerable fishing of salmon prevails in the spring when the prices are always higher than grilse that are caught in the autumn, it would raise the average or depress it accordingly. Taking one year with the other, I think the averages may be considered fair ones.

1103. Is the quality of salmon caught in the sea superior to the quality of salmon taken in rivers?

Salmon are understood, by all practical fishers, to depreciate, after remaining any considerable time in the rivers, but in salmon taken at the mouths of the rivers, where a very great portion of the Scotch salmon are taken, there is no appreciable difference either in quality or value, that I know of, compared with those taken in the sea.

1104. Is the quality of the Scotch salmon superior to the quality of salmon that comes from Holland and other foreign countries?

I should prefer Scotch salmon for my own eating; the Dutch salmon are very large, but directly the weather becomes at all warm they turn rancid, to a certain extent, although they arrive in very good order in general.

1105. What quality is the Norwegian salmon?

Norwegian salmon are very inferior; they are coarse.

1106. Does the Scotch salmon bear the highest price in the market?

It does not bear so high a price very often as the Dutch, from their superior size, command; and although the fishmongers find fault with them yet they buy them for that reason. A large Scotch salmon is worth more than a large Dutch salmon generally.

1107. Lord Colville of Culross.] Is not the Severn salmon considered as good as the Scotch?

I believe the character of the Severn salmon is very traditional. The Severn salmon, 15 or 20 years ago, arrived in London probably in from 20 to 24 hours, while the Scotch salmon was often 10 days, therefore the character of the Severn salmon possibly is higher than it deserves, as compared with the Scotch.

1108. Lord Stanley of Alderley.] In the return which you have handed in there is no mention made of salmon from English rivers; is there any quantity coming to the market from those rivers?

Not a great many; if they are anywhere in the return at all they are among those called Welch salmon. In the last two or three years there have been salmon from Devonshire.

Mr. G. Ridpath.
8th June 1860.

1109. You do not take into account salmon coming from Christchurch, Wood Mill, and several other places?

No, it is not worth naming.

1110. *Chairman.*] You say if they are entered it is under the head of Welch salmon?

Yes, the Welch salmon are pretty numerous; there were 30 boxes from Wales yesterday.

1111. Lord *Stanley* of Alderley.] Am I to understand that the salmon from the small rivers in Hampshire and the Severn are included in that return of Welch salmon, or not included at all?

I do not think anything is put down from Christchurch; it is so insignificant that it has never been taken any notice of; those from the Severn are included.

1112. *Chairman.*] Is there not a considerable quantity of Severn salmon?

Yes, and from the Teifi at Cardigan.

1113. Does your experience enable you to say what ought to be the close time for the salmon fisheries in Scotland?

I think it would be very difficult to please everybody with respect to the close time, but I think the only way would be to make a uniform closing in the autumn, and if it were found to cause much discontent, I do not know why Commissioners should not be appointed to settle the close time for particular rivers in the same way as I believe it is done in Ireland at present.

1114. Lord *Stanley* of Alderley.] Do you receive many Dutch and Norwegian salmon during the close time?

We do not know what their close time is.

1115. During the close time of the English rivers?

Very few.

1116. But few salmon come into the market from any quarter whatever during any close time?

Very few.

1117. Lord *Colville* of Culross.] Are not there salmon in the London market throughout the winter?

Yes.

1118. Where do they chiefly come from?

I think they come from Wales.

1119. Lord *Stanley* of Alderley.] During the close time you say that very few salmon of any kind come to market; is it not a fact that some salmon out of condition do come to the market at that time?

Yes.

1120. Do you know at all from what quarter those salmon chiefly come?

I believe they come from Wales, but I do not know of my own knowledge, because I do not receive any. I believe a good number of salmon have been caught in the close time in the Tweed, and sent direct to Paris by people in that part of the country.

1121. *Chairman.*] Do you believe that the breed of fish in any of the Scotch rivers has been injured by taking the foul fish?

There are very few foul fish come from Scotland indeed. I believe the people on the River Tweed are the greatest sinners in that respect; I do not know whether it is because they are not properly looked after.

1122. Earl *Innes.*] Are not you aware that a large seizure of foul fish was made in Billingsgate Market about five weeks ago?

Yes, and a very wholesome example it was; I think it will do a great deal of good.

1123. Do you know where those fish came from?

I believe they came from the Tweed.

1124. Lord

1124. Lord *Lovat*.] Do many fish come from the Ribble or the other Lancashire rivers? Mr. G. Bidpath.

None to London ; I believe they are sold in Liverpool.

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1125. Lord *Stanley* of Alderley.] Do any come from the Dee, in Cheshire? I believe they are all sold in Liverpool.

1126. *Chairman*.] Can you offer any suggestion with a view to prevent the taking and trading in foul fish?

I think a very good way would be for the proprietors and tenants of fisheries to assess themselves very liberally for the purpose of establishing a good strong police to prevent poaching, and also to enforce the penalties which, I believe, exist under the present law, in a stricter way than they have been.

1127. Lord *Stanley* of Alderley.] In the case of that seizure of foul fish in the Billingsgate market, which came from the Tweed, what punishment was inflicted, or what penalty imposed on the party guilty of having introduced them?

I think I read in the "Times" that a penalty of 5 *l.* was inflicted, and the expenses about 14 *l.* more.

1128. Lord *Colville* of Culross.] Did you ever hear of salmon in the Scotch rivers, during the close season, in excellent condition without any roe in them?

I believe in some very early rivers, when the close time was altered from the one which was in existence previously to Home Drummond's Act, in 1829, the salmon are in excellent condition in November. I have been in the Isle of Lewis, and I have been told so by the taxman there.

1129. In consequence of the close season these fish are lost to the public, and the proprietors of the fisheries?

Of course they are ; that is to say they remain in the rivers until they lose their quality.

1130. Viscount *Hutchinson*.] Are you aware that in some of the Irish rivers the fishing season commences before the 1st of February?

I know in the county of Kerry tenants of fisheries, who are correspondents of ours, have permission from the Commissioners to begin fishing on the 1st of January, and that is a suggestion that I beg to make as to opening the Scotch rivers at a different time if it was found that you could not get an Act to satisfy every person.

1131. Are you in the habit of receiving fish from these parties in the county of Kerry?

Yes.

1132. Has your attention ever been drawn to the condition of those early fish which are sent to market in the month of January?

They catch a part of these fish in the River Lune, which flows from the Lake of Killarney into Castlemaine Harbour ; all those fish they catch in the Lake of Killarney, are considerably more discoloured than the river fish, which are probably new-run fish ; but they are all sent together, and we can only exercise our judgment in selling them according to their value ; of course the discoloured fish fetch a lower price than the others.

1133. With respect to the fish taken at the mouth of the River Lune in the early part of the season, in the month of January, have you ever examined those fish to see whether they contained roe or milt?

No ; we do not cut the fish at all, we merely sell them to fishmongers ; but they do not appear to me to have any roe. I presume they are fish that have gone down the rivers in the early part of the autumn, and after spawning, have come back in that healthy condition that salmon do on their first return from the sea.

1134. Earl *Imnes*.] Do not you find the salmon sent to market towards the end of August full of roe?

Yes ; I think there has been a great error for many years in fishing too late in the autumn ; I think that is at the root of the scarcity of salmon ; the River Tweed has been a remarkable instance of it.

(135. 4.)

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1135. Lord

Mr. G. Ridpath.

8th June 1860.

1135. Lord Colville of Culross.] When do you think the net fishing ought to cease?

I think if a period must be named, which ought to give satisfaction to all parties, it would be the 31st of August. It is very probable that there would be a difference of opinion upon that subject, according to the interests of the parties.

1136. *Chairman.*] You are aware that, until the passing of what is commonly called the Home Drummond Act, the close season began on the 26th of August?

The 10th of October was the old period previously to that Act to which the Tweed was kept open. I think the Tay closed on the 26th of August then.

1137. Are you speaking of the close season under the old Tweed Act?

I am speaking as to the close season before the year 1829.

1138. You are speaking of the Tweed only, and not generally of the Scotch rivers?

The close time varied; the Tay, up to that time, if I recollect rightly, closed on the 26th August. An unfortunate alteration then took place, by which the fishers were allowed to fish until the 15th of September, and they killed the salmon in a state in which they never ought to have been killed, and now they are glad to go back to the old close time.

1139. Lord Stanley of Alderley.] This return, which you have put in, refers to the fish imported into London only?

Only into London.

1140. Can you inform the Committee whether they would be able to obtain from any gentleman carrying on the same business as you do, in Bristol and Liverpool, similar returns as to the fish imported from Scotland and Ireland into those markets?

I was informed that that question would very likely be asked me, and I applied to our correspondents and relations in Liverpool who carry on a large business there, but they are not able to furnish any returns; that was the answer I got a day or two back. The importation into Bristol is very insignificant.

1141. *Chairman.*] Are not most of the large towns supplied from the London market?

Most of the Lancashire towns, I believe, are supplied from Liverpool, but it is very probable that London fishmongers send to them also.

1142. Lord Stanley of Alderley.] Is not Manchester in a great degree supplied with salmon from London?

No; principally from Liverpool. We have relations in Liverpool carrying on a very large business there, and they have a great quantity of salmon from the North of Ireland to supply those towns; they have a house of business in Manchester, and one at Birmingham also. I believe they principally supply the towns in Lancashire.

1143. Viscount Hutchinson.] With respect to Irish salmon, can you state at all whether or no the markets at Liverpool and Bristol are supplied with any quantity of fish from Ireland?

Yes, a very considerable quantity indeed, but principally the former.

1144. Can you form any idea of the proportion which that supply from Ireland to Bristol and Liverpool bears to the supply to London from the same source?

I cannot; I know that it is very considerable, but I cannot speak as to the amount. I wrote to Liverpool on purpose, the other day, that I might be able to answer the question if it was put to me, and I could get no return, there being none in existence, as I have already stated.

1145. According to your return in the year 1859, speaking in round numbers, the supply of Irish fish was not quite one-fourth of the whole, being 4,855 boxes, and the total supply 21,667?

Yes.

1146. Do

1146. Do you suppose that the supply from Ireland to the other markets in England, such as Bristol and Liverpool, bears about the same proportion to the total supply?

Mr. G. Ridpath.

26th June 1866.

I cannot say as to Liverpool and Bristol; but there is some difficulty in getting exactly at the quantity of salmon that arrives at London now, because many of the Scotch fishers put very large weights into their boxes for the purpose probably of saving carriage, and, therefore, we are obliged to guess the weights in the boxes, for the purpose of putting them down as cwts. I can only say what I have said before, that this account is made with the intention that it should be as correct as possible for our own guidance.

1147. Lord *Stanley* of Alderley.] Is it not the fact, that recently a practice has prevailed of putting more salmon into the boxes, and less ice than formerly?

Yes; they are able to do so because they arrive in London on the second day from Scotland, therefore less ice will do.

1148. Viscount *Hutchinson*.] In speaking of a box weighing 112 lbs., you do not mean a box whose contents are 112 lbs., but a box which, with its contents, is 112 lbs.?

I had the curiosity the other day to look at the number of packages which arrived during the last three years, and the number put down in the returns as cwts. I found that I had allowed between 8,000 and 9,000 boxes more for the purpose of making them into cwts.; and to make it a correct return, as nearly as I could; not having access to other people's quantities, I cannot be certain.

1149. Lord *Colville* of Culross.] How do you account for the great increase according to your return in the quantity of salmon sent to London the last few years from Wales against the falling off in that sent from Scotland?

I am quite unacquainted with Welch rivers; I have not seen anything of them, nor do I know any of the people connected with them. I believe in this Return, in 1858, a good number from Devonshire are included.

1150. Duke of *Richmond*.] What is the heaviest fish you have had this year from Scotland?

Fifty-four pounds.

1151. From the Tay?

Yes.

The Witness is directed to withdraw.

MR. CHARLES STEWART is called in, and examined.

1152. *Chairman*.] I BELIEVE you are a solicitor, residing at Inverness?
I am.

Mr. C. Stewart.

1153. Do you act professionally for several proprietors of fishings in the River Ness, and also for Lord Lovat, who is proprietor of the salmon fishings in the River Beauly?

I do.

1154. You were, I believe, also solicitor to the promoters of the Ness and Beauly Fisheries Bill?

I was.

1155. Have you had occasion professionally to devote a great deal of attention to the salmon fisheries in the Ness and Beauly, and their estuaries?

I have.

1156. Duke of *Richmond*.] What do you mean by an estuary?

I mean an inlet of the sea, and what is also the passage by which a river has its outlet to the open sea.

1157. Do you mean by the estuary of the Ness and Beauly the Moray Firth?

Not the outer Moray Firth.

1158. But the inner one below Fort George?

Below and above Fort George.

(135. 4.)

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1159. Is

Mr. C. Stewart,
8th June 1860.

1159. Is not that in truth the Moray Firth?

No, it goes still further.

1160. If a large man of war steamer requires to get coal, where does she go to get it; to what harbour can she go in the Moray Firth?

She would go to Cromarty, or get her coals from Inverness.

1161. Is Cromarty in the estuary which you describe?

No, Cromarty is beyond.

1162. Which way?

Cromarty is still further north.

1163. Upon which side of Fort George?

It is not in the same estuary at all.

1164. It is a firth going out of Moray Firth, is not it?

It is at the outlet of a different river; it is at the mouth of the Conan.

1165. Earl *Cawdor*.] You extend your estuary nearly as far as Cromarty?

Nearly as far as Cromarty. According to one view, the estuary goes as far down as the West Sutor of Cromarty. I am not, in saying this, speaking of the provision in the Ness and Beaully Bill.

1166. How many miles is the furthest stake net that you propose to take away from the Beaully?

I think 20 or 21 miles.

1167. Lord *Stanley* of Alderley.] How far from the mouth of the Ness?

From the mouth of the Ness about 14½ miles.

1168. Earl *Cawdor*.] I believe that furthest stake net is five miles outside of Fort George?

Yes.

1169. Upon what pretence do you include that in the estuary of the Ness and Beaully?

It is not nearly so great a distance from the Ness in Beaully as the Drumley Sands from Perth, where the tidal influence is felt in the Tay case, nor is the length so great as the length of the estuary in the case of the Duke of Sutherland in the Dornoch Firth.

1170. On what pretence do you include that furthest stake net, whatever distance it may be, within the estuary of the Ness and Beaully?

On the principle decided in these cases; if that principle was right, I apprehend that the estuary of the Ness and Beaully would go down as far as I speak of.

1171. Why do you stop there?

We must stop somewhere. But the estuary as defined in the Ness and Beaully Bill was different.

1172. How far is that stake net, which you say is five miles to the eastward of Fort George, from the mouth of the nearest salmon river?

It is about 14 miles.

1173. From the Nairn?

It is on the opposite side of the Firth, the one that I speak of, on the north side.

1174. I am speaking of the one on the south side?

I do not know; I think about five miles.

1175. Is it more than a mile and a half?

I think it is, but I do not know that; I do not know the space between it and the Nairn; for I had no occasion to inquire into that. I only speak of the distance from the Ness and Beaully.

1176. Supposing it be within a mile and a half, or two miles of the mouth of another salmon river, should you then think it belonged rather to that salmon river than to the Ness or the Beaully?

Very much would depend, I think, on the appearance of the firth or estuary of the river, and the particular place; it was about the outlet of the Ness and Beaully, but certainly it could not be said to be on the outlet of the Nairn, for there is a space of open sea coast between that stake net and the Nairn.

1177. Lord

1177. Lord *Stanley* of Alderley.] I think you stated in answer to a former question, that you considered that you had adopted the same principle which had been adopted with regard to the Tay. What principle do you consider was adopted in the Tay, as to defining that which was the river where the stake nets were to be taken away?

I take the decision. I think that they distinguished between the open sea and the estuary.

1178. What were the limits that were assigned to the estuary in the case of the Tay?

The particular place was at Drumley Sands.

1179. And on the opposite side?

I do not know the name on the opposite side.

1180. When you say that you apply the same principle to the Beauly and Ness which had been applied to the Tay, what do you consider that principle to be which governed you in limiting the estuary to a particular point?

I think the principle which distinguishes where stake nets were prohibited, and where they were not prohibited, was whether it was open sea or inlet.

1181. Where would you draw the distinction between that which was open sea and inlet?

I am not prepared to answer that question, further than that it must be matter of inquiry in each particular case.

1182. Upon what ground did you proceed in establishing the point spot which you have taken in your Bill with regard to the Ness and Beauly as the extreme point?

We took the point which we thought reasonable, and, in fact, what we thought we could fairly ask and get.

1183. Earl *Cawdor*.] Upon what principle do you say that the outer limit of your Bill was not in the open sea, when it is five miles beyond Fort George?

I think, if your Lordship looks at this plan (*producing the same*), you will think it is scarcely open sea; but the Ness and Beauly Bill declared that the limit of the river should be from Fort George to a burn on the opposite side, Rosemarkie Burn, and then it went five miles further seaward; and the reason, as I understand, of the London solicitor, was that five miles had been given in the case of the Tweed.

1184. Duke of *Richmond*.] You said there was a stake net on the north side of the Moray Firth, in your proposed estuary?

Yes; there were many stake and bag nets.

1185. Is not there a place called Fort Rose?

Yes.

1186. Do you know the stake nets at Fort Rose?

I do.

1187. Do you know who they belong to?

To Mackenzie, of Flower Burn, principally.

1188. Do you know what is the value of the estate there altogether, land and fishing?

No, I do not know the value of the land; but the present rental of the fishing, I think, is 590 *l*.

1189. Do you believe, if you took away the stake nets, that that gentleman would have 200 *l*. from that estate?

I have not the least idea of the value of his estate.

1190. I suppose, in fact, when you were bringing in the Bill, you thought you might ask for a little more than perhaps would have satisfied you if you had got it?

We could not be certain of what we would get from Parliament, of course, but we thought we could fairly and reasonably ask this.

1191. *Chairman*.] Has the quantity of salmon in the Ness and Beauly very much decreased in the last few years?

Yes.

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1192. Can

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Mr. C. Stewart.
8th June 1860.

1192. Can you inform the Committee what the comparative amount taken in different years past has been?

I have done this. I have made inquiry with regard to the rents paid, and I find in the year 1794 the fishings called the Four Cobles, on the River Ness, were let, including another fishing called the Friar Shot, at a rent of 950 *l.* on a lease of 21 years, that is 211 *l.* for each coble, as it was called.

1193. That was prior to the introduction of any stake and bag nets?

Yes, that was prior to the introduction of any stake and bag nets. I find that in the year 1815 each coble, that in 1794 was let at 211 *l.*, was let at 120 *l.* I have not been able to discover any leases between 1815 and 1836, but in 1836 I have got authentic sources of information, and I find that that rent had been diminished to 40 *l.*

1194. Lord *Pothwarth.*] £. 40 per coble?

Yes, which in 1794 was 211 *l.* I find that for the 10 years from 1837 to 1847 the rent had come down to 32 *l.* 19 *s.* 2 *d.*, and that from 1847 to 1857 the rent, which in 1794 was 211 *l.*, was for those 10 years 17 *l.* 12 *s.*

1195. You are speaking of a part of the river where they fish with the net and coble only?

With the net and coble only.

1196. Lord *Stanley of Alderley.*] To what do you attribute the diminution of those rents?

To the great number of stake and bag nets mainly.

1197. Which did not previously exist?

Which did not previously exist.

1198. Are you at all aware what rents have been given for those stake and bag nets?

The fishings of Mackenzie of Flower Burn, which in the beginning of the century brought, as I am informed, a rent of 100 *l.*, were let about 1810 for 250 *l.*, on a lease which I think expired in 1830; the present rent of the fishings of Mackenzie of Flower Burn is 590 *l.*

1199. So that in point of fact the diminution of the rents of the upper fishings have been nearly compensated for by the increased rents of the sea fishing by the stake and bag nets?

No; the rents of the river at that time were much greater than the rents of the estuary now.

1200. While the rents of the sea fishings have been progressively increasing, the rents of the river fishings have been progressively diminishing; is not that the case?

Yes, the rents of the rivers have been progressively diminishing.

1201. Lord *Stanley of Alderley.*] Can you give the Committee a return of the rents for the river fishings, both of the Ness and Beaully, at the different periods, and also the rents of the sea coast fishings, at the different periods up to the present time?

I can give you the number of fish caught in the Beaully at different times: for the years from 1809 to 1818, the take of salmon in the Beaully was 30,823; from 1819 to 1828 it was 22,812; from 1829 to 1838 it was 22,716; from 1839 to 1848 it was 14,639; and from 1849 to 1858, another decennial period, it was 8,708.

1202. Duke of *Richmond.*] In salmon do you include grilse?

No; I have a separate note of grilse.

1203. Lord *Stanley of Alderley.*] Give the grilse?

The number of grilse from 1809 to 1818 was 54,352; from 1819 to 1828 it was 74,189; from 1829 to 1838 it was 86,438; from 1839 to 1848 it was 42,152; and from 1849 to 1858 it was 43,700.

1204. Can you give the Committee the number of fish taken out of the Ness?

I found it quite impossible to get that. I may mention that I have a return for

for some years from Mr. Archibald Tait, who was the tenant of the Four Cobles fishings to which I have referred.

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1205. What fishings are those?

The Four Cobles in the River Ness. Under that lease to which I have referred, which was granted in 1794, the tenants, besides paying the rent which I have referred to, were also obliged to furnish the inhabitants of Inverness, for the first two months of the year, with 50 salmon; for the next four months with 150 salmon, at 4 *d.* a pound; and for all the rest of the year with as many salmon as might be required by the inhabitants, not exceeding one-seventh of the whole take, at 2 *d.* per pound. I have a return here, which shows the number of fish taken in certain years from 1843 to 1857 inclusive, during which Mr. Tait was tenant.

The following Return was delivered in :

RETURN for the FOUR COBLES FISHERIES of the NESS, by Mr. Archibald Tait, during the Years he was Tenant.

Y E A R.	Rents and Expenses.			Gross Returns.			Number of Salmon.	Number of Grilse.
	£.	s.	d.	£.	s.	d.		
1843 - - -	158	5	1	113	12	2	132	120
1844 - - -	94	7	9	82	12	7	70	95
1845 - - -	113	17	2	14	-	-	- - -	118
1847 - - -	129	11	8	18	11	-	- - -	150
1848 - - -	108	4	8	4	-	-	4	7
1849 - - -	141	5	2	18	-	-	7	90
1852 - - -	295	13	-	24	15	-	13	163
1853 - - -	85	6	8	124	15	-	7	469
1856 - - -	111	12	-	76	-	-	- - -	220
1857 - - -	150	5	10	146	8	-	29	403
10)	1,388	9	-	617	13	9	262	1,335
Average - - -	138	16	10	61	15	4	26	183

1206. How do you account for no salmon being taken in the years 1845, 1847, and 1856?

I really do not know.

1207. Lord Colville of Culross.] What extent is that fishing?

It is about two miles in length.

1208. Duke of Richmond.] Does that return refer to the salmon given to the people of Inverness, or to the whole of the salmon taken in the River Ness?

The whole of the salmon caught within this space called the Four Cobles.

1209. Does that include the stell net that there is at the mouth of the river?

No, it does not include the stell net.

1210. Have you a return showing how many salmon were caught in the stell net during those years?

I have it not here; but I have a return for some years, in London, which I will hand in.

See Appendix.

1211. Lord Stanley of Alderley.] In those years, when you state no salmon were caught, were the net and coble used at all?

It must have been in consequence of so many grilse having been killed.

1212. Lord Polwarth.] Those grilse were taken with the net and coble? They must have been principally, I think.

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1213. At

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1213. At the time that they usually took the salmon?
At the same time.

1214. You took no salmon?
It is not a return of my own; it is a return I have got from Mr. Tait.

1215. Were no salmon belonging to that river taken in the stake nets at that period?

I have no return of the number of fish taken in the stake nets.

1216. You are not aware of salmon belonging to the Ness being taken at that time?

I have no reason to suppose they were not taken; I have no return of the number of fish taken in the stake nets.

1217. Duke of *Richmond*.] Are you aware in those years when they caught no salmon by the net and coble whether there was not an angling club established that bought off the net and coble in the Ness?

There has been an angling club for several years, but not continuously; and whether they had the fishing in this particular year I do not know.

1218. You do not know whether they bought off the net and coble by giving the lessee a certain sum of money not to use the net and coble during those years?

No, I do not know how the fact stands with regard to those years; but I have always understood that in former years, about the end of last century, as well as in this, there was much more fish killed by angling without paying for it, than there has been during the last few years when it has been paid for.

1219. Lord *Colville* of Culross.] How were those two miles of fishing situated with regard to the town of Inverness?

Running through the town of Inverness, and partly above the town.

1220. Does the tide go above Inverness?

Not quite so far up as the upper part of these fishings go.

1221. Lord *Polwarth*.] What might the real value of the net and coble fishings upon the Ness have been at the period you speak of?

About 80 *l.* was paid, but they were not worth so much.

1222. Duke of *Richmond*.] Whom does the Ness belong to principally near the river's mouth?

There are several parties; those Four Cobles belong to different proprietors; the town of Inverness and corporation have one half coble and Mr. Forbes has, I think, a half coble.

1223. Is that Mr. Forbes, of Culloden?

No, Echt, I think; and Mr. Fraser, of Buncrue, near Inverness, has, I think, one coble, and some other gentlemen, whose names at this moment I forget.

1224. Has not Mr. Stewart, of the firm of Forbes, Stewart & Company, the salesmen at Billingsgate, a fishing in the Ness?

I do not remember; I am not aware that he has; a Mr. Stevenson had at one time a fishing, but whether Mr. Stewart has now I am not aware.

1225. Earl *Cawdor*.] You say that the number of fish in the Ness has diminished very much?

Yes.

1226. Do you attribute that entirely to the stake and bag nets, or may not other causes have been at work, such as over-fishing?

I certainly do not think that.

1227. Earl *Imes*.] The statement you have just been making only applies to a very small portion of the Ness?

Yes.

1228. Therefore that is no fair criterion as to the amount of fish caught in that river in recent years?

I think it is a perfectly fair criterion of the rest.

1229. Lord

1229. Lord *Colville* of Culross.] What rent does Mr. Tait pay for those two miles of water?

I think the average rent for the last 10 years has been between 70 *l.* and 80 *l.*, and that formerly was upwards of 800 *l.*

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1230. For the same fishings?

Yes, in 1794, and down to about 1815.

1231. *Chairman.*] Do you believe that the quantity of fish taken has diminished, not only in the river but in the estuary?

I had no means of ascertaining; I was not able to obtain returns of the number of fish killed in the estuary; I can only judge of that from the rent.

1232. Lord *Stanley* of Alderley.] You have stated the number of fish taken in the Beaully, but you can give no accurate account of the number of fish taken in the Ness; can you state to the Committee what quantity of fish have been taken during the same period in the sea fishings adjacent to the Beaully and the Ness.

I know this. In several fishings above Chanonry Point and Fortrose, where the Flower Burn fishings are, there are several stations where stake nets formerly existed where there are none now, they have been abandoned, and I know that some of the rentals have diminished; for instance, the fishings at Fort George were leased by Mr. Stephenson at one time for 70 *l.*, the rent now is 14 *l.*; Colonel Baillie, of Redcastle, formerly got 25 *l.*, he now gets 4 *l.*, at least he so returns; Sir James Mackenzie, in 1816, for certain fishings of his at Castleton got 21 *l.*, these fishings are now entirely abandoned; at Avoch there was a stake net, which has also been abandoned; Lord Murray now returns his fishings near Fort George at 10 *l.*, in 1831 they were let for 30 *l.*

1233. Duke of *Richmond.*] All those are stake net fishings, and not river fishings at all?

All stake nets.

1234. All stake nets, or bag nets?

All those.

1235. Then, in your opinion, those stake and bag nets in the sea have not been more successful than the net and coble in the river?

Those particular stake nets that I have last mentioned, apparently have not been more successful. But the stake nets at Fortrose, and opposite to Fort George, belonging to Mr. Mackenzie of Flower Burn, have been much more successful. It is in a great measure owing to the great success in the fishings about Fortrose, that the other stake nets above have been unsuccessful.

1236. Do you believe that the stake nets on the Ross-shire side of the Firth have taken the Beaully fish or the Ness fish?

I cannot give an opinion upon that point; I am not a practical fisher.

1237. Is not it supposed that the natural history of the salmon is, that he hugs the shore and goes to his own river?

Yes, I understand so.

1238. Then the fish that hug the shore to go to the Beaully would not keep that side of the Firth, but would keep the other side of the Firth?

They might hug either; they might get to the Beaully either way.

1239. But they would not get to the Ness by going either way; they would have to cross the Firth?

Yes, they would have to cross the Firth.

1240. Earl *Cawdor.*] Does that stake net to which I have referred, five miles out of Fort George towards the Nairn, in your estimation, take any fish belonging to the Ness and Beaully, being within five miles of another salmon river?

I should say it would take the fish going to the Ness and Beaully; it seems to be on their way to the Ness and Beaully. If they are coming from the north, apparently they might come up this bank, called the Riff.

1241. Lord *Polwarth.*] Have you any practical knowledge of the course that the fish take coming into that estuary, or when in that estuary before they approach the river?

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I have

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I have not a practical knowledge, myself; but I know the opinions of practical men.

1242. Earl *Cawdor*.] It has been stated in evidence that the fish come from the north; if the fish do come from the north, would they come along the shore of the Moray Firth, outside Fort George?

The opinion of practical men is, that the fish, before coming up the river, take first of all one of the two channels. There is a bank called the Riff, between the north and the south side, and some of the fish take the one channel, the south channel; and others the north channel; they then strike against these stake nets on this headland at Chanonry Point, and are there taken.

1243. Lord *Polwarth*.] The great proportion are taken upon that headland? Yes, decidedly; there are more taken there than all the rest put together.

1244. What is the name of that headland?
Chanonry Point.

1245. Do you conceive the diminution both in the stake net fisheries and in the river fisheries, to arise from there being fewer fish in the river?

I account for it in that way.

1246. *Chairman*.] Do you believe that the alteration of the close season by the Act of 1828, commonly called Home Drummond's Act, has been beneficial or injurious to the salmon fisheries?

I think the alteration has been injurious.

1247. Earl *Cawdor*.] Do not you think that that may have had something to do with the diminution of the fish?

I think it may.

1248. Earl *Innes*.] You would adopt an earlier period for closing? I would in particular rivers; in the Ness I would.

1249. *Chairman*.] What would be the proper time, in your opinion, for the commencement, and for the closing of the fisheries?

In the Ness the fishing formerly commenced on the 10th of December, and ended on the 26th of August, and I think myself that that would still be a good time.

1250. Lord *Colville* of Culross.]. Were not the fisheries in the Ness very much injured by the breaking in of the banks of the Caledonian Canal seven or eight years ago?

I am not aware that they were more than in other rivers, where damage was done by the great flood of 1849.

1251. *Chairman*.] Do you think there ought to be an extended period for rod fishing, after the net fishings have closed?

I think there should be.

1252. What extension of time would you give for rod fishing, after taking away the nets?

In the Ness and Beaully Bill we propose to continue rod fishing until the 1st of October. With regard to that question about the breaking in of the Caledonian Canal, the principal breach I think was below, and the fishings above have fallen off.

1253. Were not the fishings up in the Garry utterly destroyed by that breach in the canal banks, about a couple of miles below Duckfour?

No.

1254. Duke of *Richmond*.] Is there any cruive dyke upon the Ness?

No.

1255. *Chairman*.] Have you any further suggestion to offer for the amendment of the law?

No. The abolition of stake and bag nets, and the alteration of the close season, is what I would suggest in that respect.

The Witness is directed to withdraw.

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Mr. JOHN ANDERSON is called in, and examined.

1256. *Chairman.*] I BELIEVE you are a fishmonger in Edinburgh?
Yes.

1257. And have been so for many years?
Yes.

1258. Have you also been lessee of salmon fishings?
Yes.

1259. In what rivers?
The Forth principally.

1260. Are you still the lessee of salmon fishings?
Yes.

1261. Has the fishing in that river fallen off of late years?
It has rather fallen off; it varies very much. There are generally three bad years and two good years.

1262. Has the fishing fallen off permanently, in your opinion?
It has fallen off since 1832.

1263. Supposing your lease expired, would you be prepared to give the same rent for another term of seven or ten years, as you have given hitherto?
It greatly depends upon the markets; if the markets had fallen we should require to lower the rent, but if they continued the same we would give the same rents.

1264. Do you think that the decrease is progressive, or that there is merely a fluctuation; that some years are not so good as others?
It depends upon the weather very much, and the season; some seasons are very bad, and some seasons are very good. I have taken the Stirling fishings on two leases of five years each. In the first five years there were three very bad years, but the next two years made it up.

1265. How is your fishing carried on, by means of the net and coble, or by means of fixed engines?
We have a cruive at the top of the water, and then we fish with a net and coble.

1266. Have you any stake or bag net?
I have three stake nets, two at Kincardine, and one at Queen's Ferry.

1267. Where is your cruive?
At Craig Forth, two miles above Stirling.

1268. *Earl Innes.*] Do you take many fish by means of the cruive?
At certain seasons, a good many.

1269. *Lord Polwarth.*] Have you the whole river?
No, I pay 1,500 *l.* a year. I am the largest lessee, the next rental is about 100 *l.* Below me, there are five or six small stations.

1270. *Earl Innes.*] Do you fish with the net and coble immediately below the cruive dyke?
We fish above and below; not much above, but we fish more below.

1271. Is not the bulk of the fish killed below the dyke?
Yes, there is not one-tenth killed above the dyke.

1272. Do you think if that cruive dyke was taken down that the fishing would improve?
It would improve the multitude of fish.

1273. There would be more fish get up the river to spawn?
Yes.

1274. *Duke of Richmond.*] You would not catch so many, would you?
I do not know; it would require more men to keep the fishings going, because
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we fish with a very few ; just now the whole of the fishing is done by 12 men altogether, and we would require other 12, but then we would kill as many as if the cruive were there.

1275. Lord *Polwarth*.] That is, if there were more to kill ?
There would be more to kill.

1276. Earl *Innes*.] Then you would not be a loser by the removal of that dyke, you think ?

I might for a year or two at the time, but the fish would ultimately come to be plentiful.

1277. *Chairman*.] Do you think you would be a loser by the abolition of stake and bag nets ?

We would be gainers on the river.

1278. You would be gainers on the whole ?

Upon the whole we should be gainers, by a long way.

1279. Lord *Stanley of Alderley*.] You think the effect of abolishing the stake nets and the cruives would be materially to increase the quantity of salmon which would be bred in the river, and eventually, instead of there being a loss, there would be a gain to you ?

A great gain.

1280. *Chairman*.] And probably the quality and size of the fish would also improve ?

It would improve them very much ; for instance, this last season has proved it more to me than any other time ; last August and September we had a very great flood in the Forth, so much so that for days we could not get the nets to work at all, and a great many very large fish went past ; and at the beginning of this last month of February we had very nice small water for three weeks, and we got 56 salmon the first day ; amongst those 56 salmon there were only three fish below 12 lbs ; the average was about 19 ½ lbs ; and, in the 56, there were some as high as 28 lbs. ; they were all winter fish, a thing that we never saw in the Forth before for many years.

1281. Lord *Stanley of Alderley*.] To what do you attribute that ?

I think it was owing to the fish getting up early at the back end of the year, during the latter part of August and the beginning of September, to the spawning grounds.

1282. Lord *Polwarth*.] And coming back early ?
Yes.

1283. *Chairman*.] Then by an earlier close season you think you would have a greater quantity of good fish at the beginning of the season ?
Yes.

1284. Lord *Colville of Culross*.] When there is a fresh or spait in the Forth, do the fish pass the cruive over the dyke.

They swim right over it ; but it is only with an extreme tide and a spait together.

1285. Lord *Stanley of Alderley*.] Is the Sunday slap carefully observed in your cruives ?

Yes ; a person is sent down from Blairummond every Saturday night to see that it is properly done.

1286. Is any Sunday slap observed with regard to stake nets ?
None.

1287. Do you think the Sunday slap could be observed in stake nets ?
I think it could, in good weather ; not in bad weather.

1288. Lord *Lovat*.] Are not the stake nets dry at low water ?

During extreme spring tides, but not in the neap tides ; there would be four or five feet over them in the neap tides in certain localities.

1289. Duke of *Richmond*.] Do not salmon thrive better and run more briskly when there is a spait ?

Yes, they ascend the river much quicker.

1290. You

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1290. You have stated that fish went over the cruive dyke in consequence of a spait, and that the next year you caught better fish at the mouth of the river than you had done before?

My meaning is this, that the fish that we lost at the latter part of August by the flood, got early up to the spawning ground, and consequently spawned earlier than those that got up after the 14th of September, and got down earlier. If we had fished at the 14th of September, and caught all the fish going up the river, it would throw them back 14 days in the season.

1291. You think, for the benefit of the fisheries, that the close time should begin earlier and stop earlier.

Certainly; it would enable the largest fish to get up the river.

1292. Lord *Polwarth.*] You mean by those fish going up early that they got back to the sea and fattened, and came back to you in the next year in good condition?

Yes, at the first of the year.

1293. *Chairman.*] What in your opinion ought to be the time for closing and the time for opening the fishing season?

The river Forth especially, I should say, ought to be opened on the 1st of January and closed the last day of August, if not earlier, because for a number of years, when it was very warm in June, I have observed at that station, where we generally get about 2,000 salmon every year when the season is good, and about 1,000 when it is bad, that half of the fish, from the 26th of August, or even from the middle of August, commence to get very red and very bad; they are full of large milt or large roe.

1294. *Chairman.*] And scarcely fit for the market?

Very unfit for the market; sometimes hardly eatable.

1295. Lord *Lovat.*] You think the fishings ought to close sooner?

When it is a wet season they do not commence to be red so soon, but when it is a warm season in June, they commence to get bad. Those are the greatest spawners that go early up to the spawning beds.

1296. *Chairman.*] Has there been much destruction of salmon fry occasioned by the mill races and weirs?

A great quantity is killed at the mill races, because it is well known that the millers have bags, or what we call pawks, at the back end of the mill, and when the fish come to the mill race, they get into these pawks, and are caught there in buckets' full, at certain seasons of the year, and I am told that they even feed their pigs with them.

1297. Lord *Polwarth.*] You mean what we call smoults?

Yes.

1298. *Chairman.*] What regulation would you propose for the prevention of this evil?

I think there ought to be a heck put on the top of the race at certain seasons, a very straight heck will prevent them going into the race; when they once get in, they cannot get out of it; when the salmon fall into the strong current of the race, they go down to the mill, and the wheel just kills them at once, they never get past it. I believe a great number are killed in that way, because we have seen 12 or 14 in the morning lying below the mill. The cruive dykes are very bad in preventing the fry getting down to the sea. I have known them for three weeks lie behind the dyke, wanting to get down.

1299. Lord *Lovat.*] They can go through the cruive, cannot they?

In the way it is constructed, there is only a small portion can get down; they fall over the dyke into the back dam, as they call it, at the back of the cruive dyke; it is deep water, and when they fall in there, they cannot get over the dyke.

1300. You have two dykes, have not you?

We have three dykes; supposing this sheet of paper is the breadth of the river, there is a dyke for leading the water into the mill, and another for taking the water into the cruive, and there is a dyke below the cruive to prevent the fish going up the river; that is what we call the back dam; it

Mr. J. Anderson. is very deep water, the dyke being about 10 feet high ; that creates a great body of water, and when the fish fall into it, I have known them lie for three weeks, trying to get over the dry stones.

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1301. Is there no aperture to let the fish through ?

No.

1302. How does the water get out ?

Through the rubble stones ; it is as dry as this table ; it is all built of loose stones.

1303. *Lord Polwarth.*] The water filters through the stones ;

Yes, when the dry weather comes, I have seen them lying for three weeks, and could not get down through it, the cruive is not nine feet broad altogether ; the hecks are only three inches wide, and unless the fish comes with its head right into the cruive, it cannot get through.

1304. *Lord Lovat.*] The fry can get through, cannot they ?

They cannot go for the rush of water ; the noise and the appearance of it frightens them, and they go away into the still water, into the back dam.

1305. *Chairman.*] Do you believe that the liquid which flows into the river from gas works, bleaching grounds, and paper mills, is also very injurious ?

Yes, very much ; I have observed it upon the Allan more than any other river.

1306. *Lord Polwarth.*] The gas works are not allowed to pour their refuse into the river, are they ?

Who stops them ?

1307. *Lord Stanley of Alderley.*] What evidence have you to lead you to believe that the gas works on the river are prejudicial to the fish ?

My own eyes.

1308. Have you seen fish dead from that cause ?

My fishermen went up the Allan one day this last season during the summer time, and we got I suppose as many small fry as would fill a bushel, lying dead in the pools. We did not find one above Puller's bleaching field.

1309. That is at the Bridge of Allan ?

Within a hundred yards of the Bridge of Allan ; the water comes into the bleaching field, and there is a mill race below that, where there were hundreds lying dead, but above it there was not one ; we found that five or six times in one year.

1310. Are you aware whether there is any new material used in the bleaching field which is more prejudicial to the fish than the materials which were formerly used ?

From their own men we are led to believe that there is some new mixture used for whitening the cloth, and they let it go into the water ; it is a compost of lime of some description, and whenever the fish taste it, they just turn up at once. I have seen foul salmon and grilse, of 12 and 14 pounds lying dead in the pools in good numbers.

1311. *Lord Colville of Culross.*] Have you observed at any other mills the refuse from which has been prejudicial to the salmon ?

It was once known that there were a great number of fry dead immediately below some paper works, but none above them, on the Allan.

1312. What material do you believe was used in those paper works that occasioned this disaster ?

I could not say ; it was a very strong poison ; certainly there was not a living fish seen in the pool ; it was very small in circumference, but every one was dead ; the stuff that comes from the gas works, both at Deanston and at the Bridge of Allan, and at Stirling, is very prejudicial to the fish ; we see it floating halfway across the water.

1313. A sort of oily scum ?

Just an oily scum on the top ; if that goes over our shot we hardly get a fish ; it is below Stirling that this stuff goes over the water more especially. It takes place about the 1st of March, and continues for about six months every year ;

year; if the wind blows this liquid over the ground where we fish for spirlings with long poles and nets, we cannot get one.

Mr. J. Anderson.

8th June 1860.

1314. Is a spirling the same as a smelt?

Yes, smelts and spirlings are the same; it has a smell like a cucumber.

1315. *Lord Lovat.*] Do these substances you have referred to all float on the surface, and do not mix with the water?

They will mix below too; the oil comes to the top.

1316. *Chairman.*] Do you think it would be possible to compel the proprietors of these works to dispose otherwise of the refuse that flows from them, without any great amount of hardship?

There is an Act of Parliament for that already.

1317. But it is not enforced?

It is not enforced by the magistrates. I applied to the magistrates, and Mr. Galbraith went out to Mr. Puller's, and he promised to dig a pit and send the whole of his stuff into it, instead of sending it into the river. I believe it was partly done, but to save time and trouble they turn it off into the river; we do not see it in a flood.

1318. *Lord Stanley of Alderley.*] Under the present law, is it necessary to bring an action against the proprietor of the mill for putting deleterious matters into the river, or can a penalty be recovered by merely laying an information before the magistrate?

I believe it can.

1319. *Duke of Richmond.*] Does not the sheriff, or the Court of Session, as the case may be, call upon the prosecutor in that event to prove that the bleachers or paper makers put into the river things which caused the destruction of the fish; is not it necessary to prove that they use some material which is poisonous to the fish?

That must be proved, and we can produce no proof further than this; we find the fish all dead below where these matters enter the river, but we cannot go into the bleachfield or into the works; we have proved, at the spot where it comes out of the works, that the very stones are all coloured with it.

1320. *Chairman.*] Have you any further suggestion to offer for the improvement of the law in respect to salmon fishings?

There is one thing in the River Forth; there is what they call yairs; they are fixtures, and they kill a great quantity of the fry as they go down; if it is mossy water during the time of the fry going down the river, the yairs kill an immense number.

1321. *Lord Polwarth.*] When you found the fish destroyed by these deleterious substances, why did not you take steps to prevent it?

I applied immediately to my lairds, the town of Stirling, to stop it, and the town clerk and the provost went to Mr. Puller's, and he promised to give it up, and not to do it again.

1322. *Lord Colville of Culross.*] Does the tide go up to your cruive?

It rises nine feet upon the cruive dyke.

1323. You have had experience of salmon fishings in fresh water as well as in the sea?

Yes.

1324. Do you conceive a salmon to be any worse for being a week in fresh water?

No, as long as it is in the tideway; we have no salt water at Stirling.

1325. Supposing a salmon to be in fresh water for a week, is it as good at the end of the week as the day it was put into the water?

I do not think one week would do any harm to the fish.

1326. *Duke of Richmond.*] But a longer period would?

It depends upon the state of the water and the weather at the time; if the water was very small, three weeks would tell upon the fish very much.

(135. 4.)

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1327. If

Mr. J. Anderson.

8th June 1860.

1327. If you gave a dinner to your laird, would you give him a salmon that had been a week in the river, or one that had been just in?

I have had some customers, for instance, Lord Abercrombie, who preferred a fish killed at the cruive to one below; he thought the curd kept longer than what it did in a salmon taken in the sea.

1328. Earl Innes.] Do not you think that depends upon the temperature of the air; in cold weather the fish continue a longer time in condition, do not they?

I do not think it has that effect upon them. I know one instance: fish from the Tweed, and fish at Coldstream, they consider them to keep the curd longer and better than Berwick fish.

1329. At what time of the year?

At any time of the year.

1330. Lord Polwarth.] Do you prefer buying a fish from Coldstream to a fish from Berwick?

It will generally please better; a fish from Coldstream would please me better in cutting up, than from Berwick. I have seen several instances which are very singular.

1331. Lord Colville of Culross.] Do you think it quite possible, if, on the 14th of September, a certain quantity of salmon were put into a box with holes, that at the end of three weeks the first salmon put in should be better than the last one?

I do not know what it would be. I tried an experiment last year, which was very singular: during the last three days of fishing we had some very fine salmon, and I caused my men to pick the best as soon as they were caught, and run and bury them amongst ice, with woollen cloths round about them; we had those salmon in the ice in woollen cloths for 14 days, and they were better than what we were getting from Berwick on the 30th of September.

The Witness is directed to withdraw.

Mr. ALEXANDER SPEEDIE is called in; and examined.

Mr. A. Speedie.

1332. Chairman.] ARE you a fishmonger at Perth?

Yes.

1333. Are you also the lessee of certain fishings belonging to Mr. Grant?

Yes.

1334. Are not these fishings partly carried on by means of stake and bag nets?

Yes.

1335. On the Tay?

On the sea-coast north of Montrose.

1336. In the estuary on the open sea-coast?

On the open sea-coast.

1337. Lord Lovat.] Upon the North Esk?

Four miles beyond the North Esk.

1338. Chairman.] Will you explain to the Committee the mode in which you carry on this fishery; how your nets are placed, and the size and description of nets that you use?

In one range we have a stake net, what is called a fly net; and then there are six bag nets out from the stake net. We have other four ranges of these nets along the coast, within Mr. Grant's fishings.

1339. Lord Polwarth.] Are those bag nets one after another, out to sea?

Yes; one is planted at the end of the other.

1340. Duke of Richmond.] Is a fly net and a stake net the same thing?

It is the same thing.

1341. You do not mean by a fly net a net put upright, in which the fish are caught by their gills, do you?

No;

No; a fly net you can lower at any time before stormy weather. It is just about for the same purpose as a stake net.

Mr. A. Speedie.

8th June 1860.

1342. Lord *Stanley of Alderley*.] Will you explain to the Committee the difference between a fly net and a stake net?

A stake net is all round, in this form (*describing the same*), and has what we call a leader, so as to take the fish coming either way. A fly net is made just like the roof of a house. It is on poles, and if you see the appearance of a storm, you can make it go flat down to the bottom.

1343.] Lord *Lovat*.] Is a fly net a large net?

Yes.

1344. Earl *Innes*.] Is there any leader to a fly net?

The leader is the same as to a stake net.

1345. Then the fly net is set out at the outer end of the leader?

Yes.

1346. Exactly like the chamber of a stake net?

Yes.

1347. *Chairman*.] It has been said by some witnesses that fishing by means of stake and bag nets is more expensive than fishing by means of the net and coble; is that your opinion?

A great deal more.

1348. If it be so, why do you continue to fish in that manner rather than by the net and coble, which is less expensive?

If your neighbours beside you fish in that way, you must do the same. That fishing that I have costs me 600 *l.* a year for materials, and I have one on the Tay that does not cost above 150 *l.*, that I pay 1,000 *l.* a year rent for.

1349. Earl *Cawdor*.] Could you use the net and coble in the place where you use the stake net?

The net and coble was used before.

1350. But was not so effective?

Not then.

1351. *Chairman*.] If the abolition of stake and bag nets were a general measure you would not complain of it, but would be satisfied to carry on your fishing by means of the net and coble?

I would be very glad indeed to do so.

1352. Lord *Lovat*.] How far do your bag nets extend out to sea?

We have six bag nets 40 fathoms in length, and our leader; and then the bag is about six fathoms.

1353. Lord *Stanley of Alderley*.] Are the bag nets situated in the same locality as the stake net?

Just an extension of the stake net, about 46 fathoms each net.

1354. Do you often lose your bag nets in case of storms?

We had three that were driven round to Peterhead last year.

1355. *Chairman*.] How long have you been the lessee of those fishings?

Six years.

1356. Are they as profitable as they were when you first took them?

They are fishing pretty well this year. It depends upon the season a good deal.

1357. You do not find that there is any great diminution in the quantity taken?

No.

1358. Lord *Stanley of Alderley*.] Are you the lessee of any fishings in the Tay?

I have the town's fishings. I pay 1,300 *l.* for them.

1359. There are no stake or bag nets in the Tay, or at the mouth of the Tay, I believe?

No, there are none allowed there.

(135.4.)

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1360. Is

Mr. A. Specks.
24th June 1862.

1360. Is there a fishing in the estuary conducted by means of net and coble?

Yes.

1361. Duke of *Richmond*.] Is there no stell net?

They use the stell net, but not to a great extent. About Broughty Ferry there a few.

1362. Lord *Stanley* of Alderley.] Have the fishings increased or diminished on the Tay of late years?

There is not nearly the quantity of salmon taken since I commenced the fishing.

1363. To what do you attribute that diminution in the take of salmon?

I think the stake nets are the great cause of it.

1364. I thought you stated that there were no stake nets at the mouth of the Tay?

Beyond; when the fish are coming round to spawn, they come in-shore, and are taken by the stake nets.

1365. Where are those stake nets situated which you think stop the salmon from coming into the Tay?

There are a great many places at Arbroath, and round there. There are some at Carnoustie; that is just immediately before you come into the Tay.

1366. That is to the north-east of Dundee, is not it?

Yes.

1367. The stake net at Carnoustie is the first stake net that there is near to the mouth of the Tay to the North?

That is the first stake net, I think.

1368. How far is that from Dundee?

It is 17 miles between Dundee and Arbroath; that would be about 10 miles.

1369. Do you consider that Dundee is in the open sea, or within the river Tay?

Within the estuary.

1370. How far is it from Dundee to the opposite coast of Fife?

About two miles, I think.

1371. Are there any stake nets to the south of the coast of Fife?

Yes; after you get down below Broughty Ferry, they begin to go away round.

1372. Lord *Colville* of Culross.] Round by St. Andrew's there are stake and bag nets?

Yes.

1373. *Chairman*.] Are many of the fish that are taken in the stake and bag nets damaged by the action of the sea?

Yes, sometimes the scales are all driven off them, if it is stormy, by the action of the water, and then the fish are not nearly so good for market.

1374. Lord *Stanley* of Alderley.] Although there are no stake and bag nets actually in the Tay, do you think the stake nets at Carnoustie, at Arbroath, and at Broughty Ferry prevent the salmon coming up the Tay?

They would a good deal; but there are nets about what is called Lunan Bay. That is a piece further round the coast; there are a great many fish taken there.

1375. Do you think, if those stake nets were abolished, that there would be a larger number of salmon come up the Tay than come up now?

Yes, I think there would.

1376. Lord *Polwarth*.] Could you fish with net and cable where those stake nets are placed?

In some places we could not; where all the valuable fishings are we could fish with net and coble. At the Kirkside fishings, which are valuable fishings beyond Montrose, we used to fish them with net and coble.

1377. That

Mr. A. Speedie.

8th June 1860.

1377. That was one of the most valuable fishings on the sea coast ?
It is the most valuable there.

1378. And formerly that was fished by net and coble ?
Yes.

1379. Lord *Colville* of Culross.] Are not the fish very well protected in the Tay in the close season, in the upper water ?
Yes.

1380. All the heritors join in protecting the fish ?
Yes.

1381. Are the fisheries recovering in rent below the Tay ; Lord Gray's fisheries, for example ?

They have recovered in rent a good deal. There is a great demand now that the railways take the salmon off. We scarcely ever get less than one shilling a pound, and when I commenced fishing first, we only got from 3d. to 4d. a pound. At Midsummer 1835 we had 3d. for grilse and 4d. and 4½d. for salmon.

1382. Lord *Polwarth*.] Then you think that the number of fish has decreased, and the price has increased ?
Yes.

1383. *Chairman*.] Can you inform the Committee what is the total amount of the rent of the stake and bag net fishery on the coast between the mouth of the Tay and the South Esk ?

It is about 600 l. or 700 l.

1384. Do you think that is a fair rent ?
Yes.

1385. Do you think if the stake nets were abolished, and the lessees were obliged to fish by means of the net and coble, that they would be able to pay nearly as great a rent as that ?

There are some places where they could not fish at all. In Lunan Bay, they could not fish with net and coble there. Where there is rocky ground, and they fish with bag nets, they could not fish with net and coble.

1386. There are some places which could not be fished by means of net and coble ; but where net and coble can be used, would as large a quantity of fish be taken by that means as by means of stake and bag nets ?

Yes, I think they could do as much there.

1387. With regard to the close season, what is your opinion of present close season ?

I think it is very suitable ; I think it was very hurtful to the fishings when we fished to the 14th of September, and it was a great improvement when the fishing stopped three weeks earlier. A great deal of spawning fish were taken ; I have seen hundreds coming about September.

1388. What time would you fix for the closing, and what time for the opening of the salmon fishing ?

I think it would do no harm to the fisheries if the season was from the 1st January to the 26th August.

1389. Do you send much salmon to the London market ?

I sent about 6,000 l. worth last year. I had a good many consigned to me, besides my own fishings. I had just about 3,000 l. of my own.

1390. I think you have stated that you would propose the abolition of stake and bag nets, and the alteration of the close season. Have you any other improvement to suggest ?

I think the cruives in the river are very hurtful, and that they should be taken out ; they spoil the good fish ; there is not a good fish taken on them, and they prevent the fish from coming up the rivers.

1391. Are there any cruives in the Tay ?

There are no cruives in the Tay that I am aware of ; there are two or three in the Earn.

(135. 4.)

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1392. Lord

Mr. A. Speedie.

8th June 1860.

1392. Lord *Colville* of Culross.] Have you the Earn fishings?
I have not many of them this year; I have had them all mostly.

1393. Duke of *Richmond*.] Your opinion is, that the close time should be somewhere about the 26th of August; do not you think that that would be too early to close?

I think it is a very suitable time.

1394. You are of opinion that the removal of the stake nets, and bag nets, and fly nets, and stell nets, would be an advantage to the breed of salmon?

I think that.

1395. Do you think the better protection of the fish upon their spawning beds would also be an advantage?

Certainly, I think so.

1396. Then, in your opinion, these three measures would be advisable to be carried into execution, if possible, for the increase of the salmon tribe?

Yes.

1397. *Chairman*.] Are not a considerable number of salmon which are taken in the stake and bag nets at particular times of the year very much injured by seals?

There are a great many destroyed by the seals. We sometimes shoot at them to keep them off the nets.

1398. Do you see any objection to extending the rod fishing for sometime after closing the fishing by means of nets?

I have no objection to that, if they would take more care in preserving the fish.

1399. Duke of *Richmond*.] When you say that you have no objection to rod fishing, would not you object very much to what is called cross-line fishing in Scotland?

Yes; they should not be allowed to have above one rod: I have seen some of them with four or five rods.

The Witness is directed to withdraw.

MR. THOMAS RUTHERFORD is called in, and examined as follows:

Mr. T. Rutherford.

1400. *Chairman*.] YOU reside at Perth, I believe?
Yes.

1401. You are a salmon fisher and water bailiff?
Yes.

1402. You fish both with stake and bag nets, do not you?
I fished for 15 years with stake and bag nets, from 1822 to 1837.

1403. Do you find that a very expensive mode of fishing?
Very expensive; there is a great waste of material.

1404. More expensive than by net and coble?
A great deal; six times over and more.

1405. Lord *Stanley* of Alderley.] What made you adopt fishing by stake nets, instead of the net and coble, if you say it is more expensive?

Because of one thing; it was forced upon us in places where we could not fish with net and coble.

1406. What was your reason for taking to the stake net, instead of net and coble, when both modes of fishing were applicable?

Because they killed a deal more fish upon the sea than what the cobbles had done.

1407. *Chairman*.] Are you now a water bailiff on the Tay?
Yes.

1408. What is the present condition of the fishery there; is it increasing or decreasing in the quantity of salmon coming up the river.

The quantity of salmon is decreasing, I think.

1409. To

Mr. T. Rutherford.

8th June 1860.

1409. To what cause do you attribute that decrease?
By the sea way being so sore fished by the stake and bag nets.

1410. To any other causes?
And fishing too late; too long in the season.

1411. Would you alter the close season?
They have altered the season on the Tay now.

1412. When does the season close on the Tay?
The 26th of August now.

1413. Lord *Stanley* of Alderley.] When you say that you attribute the diminution of the fish in the Tay to the sea being so sore fished by stake nets, is it not the fact that there are no stake nets in the Tay itself?

There are none in the Tay; but the fish coming along the coast are caught for a certain distance.

1414. Where are the nearest stake nets to the Tay which you think prevent the fish coming up that river?

All the way between Fife Ness and Montrose the fish are seeking the Tay; there is no other river for them to seek.

1415. You think a stake net, even at so great a distance from the mouth of the river as those you have mentioned, prevent the fish from coming into the river?

Yes, the whole of that district.

1416. Duke of *Richmond*.] Is there a great deal of poaching in close time in the Tay?

No, it is all put down now; there is no poaching to speak of to what there was formerly; we had only three poachers last close time convicted.

1417. Are there any paper mills upon the River Tay?

No; but there are bleach fields.

1418. Do you think the stuff they use is very wholesome to the fish?

They are very bad for killing salmon fry. On the River Almond, which is one of the tributaries of the Tay, I have seen them coming down dead, and on the mill lade at Perth, the same as if you had emptied corn-chaff on the water.

1419. *Chairman*.] Do the fish usually come to the mouths of the rivers from the north?

Yes, from the north.

1420. Have you always observed that?

Always, except when there is a counter tide setting in, when they will go with it?

1421. Are you able to distinguish a fish going up one river from a fish going up another?

When I fished at Lunan Bay, that is the south side of Montrose, they averaged 2 lbs. or 3 lbs. more than they did in the Montrose Bay.

1422. You would be able to say whether a fish was a Tay fish or an Esk fish?

We thought they were all Tay fish, because they were heavier in general.

1423. Lord *Colville* of Culross.] You could tell a Tay fish from another fish?
We could.

1424. Lord *Stanley* of Alderley.] Are the fish which go up the Garry and the Tumel different from those going up the other branches of the Tay?

They are smaller; but it is the smallness of the river that causes that; that is what I thought was the cause.

1425. Lord *Lovat*.] Would you know a Tay fish from a South Esk fish?

They are smaller in size; that is all we know.

1426. Ear *Innes*.] Is not the Tay closed for net fishing on the 26th of August at present?

Yes.

(135. 4.)

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1427. Do

Mr. T. Rutherford.

8th June 1860.

1427. Do you think the 1st of February a suitable time at which to begin the net fishing again?

We formerly began on the 10th of December since I was a fisher; but I think if it was generally to begin on the 1st or the middle of January, it would be a better time, and drop it sooner; we only begin on the 1st of February in the Tay.

1428. When you fished on the 10th of September, did you kill many fish full of spawn?

Yes; I have seen them with the spawn running from them, the same as in the spawning for the Stormontfield artificial propagation ponds.

1429. Duke of *Richmond*.] Would it be worth while to fish with net and coble on the 20th of January; would it be a paying concern?

Yes, it would pay very well; because salmon is very valuable at that time.

1430. Would you catch many fish?

There would not be many caught at that season; they are not plentiful, but they are valuable at that time.

1431. Lord *Polwarth*.] Are they good?

They are the first quality at that time.

1432. Lord *Colville* of Culross.] Have the fish that you catch at that time of the year any roe in them?

No, none at that time; if there is, it is small, and hardly discernible.

1433. How do you account for these fish being there when they have come into the river, if they do not come to spawn?

When they come in clean fish, they will not go back till they have spawned.

1434. Lord *Loval*.] Have these fish which you speak of spawned early, and come back to the river?

Yes. I marked a clean salmon in the month of December, and it was caught at Killiecrowdy, upon the Garry, in the month of July, quite full of spawn.

1435. *Chairman*.] In stormy weather a considerable number of salmon taken in the stake and bag nets are damaged, are they not?

Yes, they are damaged in the bags and stakes; I have seen some in stormy weather.

1436. Duke of *Richmond*.] Do you use stell nets?

I never used them, but I have seen them used.

1437. *Chairman*.] Would it be possible to have the Sunday slap in the stake and bag nets, in your opinion?

Yes, except it was in time of stormy weather, once or twice in the season, when a man could not get out to open it.

1438. Earl *Innes*.] I believe at the commencement of the fishing season this year on the Tay you killed a considerable number of heavy salmon?

Yes, heavier than general.

1439. Do you think the better condition of the fish is owing to the earlier closing the previous season?

We considered that that was the reason; that it was the earlier closing beginning to take effect.

1440. These fish that went early to the spawning beds, had returned to the sea, and came back in good condition?

Yes.

1441. Duke of *Richmond*.] Did you catch the large salmon that came to the London market recently?

No, it was not me that caught it.

1442. How heavy did they say it was in the country?

Fifty-two pounds, and there was another caught two pounds more.

1443. *Chairman*.] You have suggested the abolition of stake and bag nets, and the alteration of the close season; have you any other alterations or improvements of the law to suggest?

No;

No ; those alterations are just everything that could be done, providing they are done. *Mr. T. Rutherford.*

8th June 1860.

1444. Do you include in the category of fixed engines to be abolished cruived dykes?

Yes ; cruived dykes are a great injury to the fry coming down.

1445. Duke of *Richmond*.] You act as water bailff under the private Act of Parliament obtained for the Tay, do you not?

Yes.

1446. If you see a man black fishing in the close time burning the water, have you the power of apprehending that man?

Yes.

1447. Is that under the Tay Act?

Yes.

1448. It is not the law of Scotland, but only in a special Act?

The law is, that any water bailiff, or man under protection by Act of Parliament, is entitled to seize and carry the poacher before a Justice of the Peace, or the Sheriff of the county.

1449. Under the Act of Parliament for the Tay?

Yes.

1450. And if a man is sent to gaol by the Sheriff for a couple of weeks, who pays for his maintenance while he is in gaol?

The fishing proprietors pay.

1451. Therefore you imprison the poachers, and you fine the prosecutor ; is not that it?

The prosecutor imprisons him, and pays for his imprisonment.

1452. Lord *Lovat*.] Has the breeding of salmon artificially in the Tay increased the number of fish at all?

I could not say that it has or not ; there is a great deal in understanding the nature of the fish. Unless it is carried out on a larger scale, I do not think it will make much difference. I have been at the taking of the salmon at every one of the breeding ponds ; they are safe from their natural enemies all the time that we keep them ; but whether they increase the salmon or not, I could not say.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned to Wednesday next, at One o'clock.

Die Mercurii, 13^o Junii 1860.

LORDS PRESENT:

Duke of RICHMOND.
 LORD STEWARD.
 Earl CAWDOR.
 Earl DUCIE.
 Earl INNES.

Viscount HUTCHINSON.
 Lord COLVILLE of Culross.
 Lord POLWARTH.
 Lord LOVAT.
 Lord STANLEY of Alderley.

THE LORD STEWARD in the Chair.

ELIAS CATHCART, Esquire, of Auchendrane, is called in, and examined.

Evidence on the
 Salmon Fisheries
 (Scotland).

1453. *Chairman.*] I BELIEVE you reside on the banks of the river Doon, in the county of Ayr?

E. Cathcart, Esq.

Yes.

13th June 1860.

1454. Have you had considerable experience in salmon fishing in that river, and also in the other rivers in Ayrshire?

A great deal.

1455. Previously, you fished on the coast of Fife above Queensferry by means of stake and bag nets?

Stake nets only, not bag nets.

1456. I believe that you are now chairman of an association that has been formed for the purpose of procuring evidence on that subject?

Yes, I am chairman of a committee of proprietors and others interested in the Ayrshire salmon fishings. That committee was appointed to collect evidence with reference to the inquiry now before your Lordships regarding the salmon fisheries of Scotland.

1457. By whom were you appointed chairman?

By the committee.

1458. Were they persons interested in the fisheries in the river Doon?

In the six rivers in Ayrshire.

1459. Duke of *Richmond.*] Were they proprietors of sea fishings, or of river fishings?

Some were proprietors of sea fishing and others of river fishings.

1460. *Chairman.*] You had previously been chairman of an association of heritors for the protection of the salmon fisheries?

I was, for four or five years, for the protection of the Doon fishings.

1461. Will you state to the Committee the result of your experience of the salmon fishing in the Ayrshire rivers?

I have a plan of our rivers (*producing the Plan*).

1462. Are there many dykes on the Ayrshire rivers?

A great number.

1463. Do you consider those dykes very detrimental to the fisheries?

In their present state, they are.

1464. Are they susceptible of such improvement as would render them innoxious to the salmon fisheries?

They are susceptible of great improvement.

1465. Will you give an explanation of the dykes which are now in existence on the various rivers?

The dykes are what are called weirs in England for storing water up for mills.

(135. s.)

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1466. Lord

E. Cathcart, Esq.
13th June 1860.

1466. Lord Colville of Culross.] Dam dykes?
Yes.

1467. Duke of Richmond.] You are referring to mill dykes on those rivers?
They are connected with mills.

1468. Earl Innes.] Is there any slap left in those dam dykes at all for the passage of the fish up or down the rivers?

There are no "statutory slaps" in any of the 81 dykes, except in No. 1 on River Ayr, and No. 5 on River Girvan.

1469. Lord Colville of Culross.] In all the rivers?
In the six rivers, containing 150 miles of good salmon water.

1470. Duke of Richmond.] Has there been any means taken to carry the law of Scotland into execution, which enacts that there must be a slap in every mill dyke?

The present Act leaves it to private parties to enforce the law. The dykes are all out of order from mere neglect; I have got plans of a great many of our dykes; here is one, for example, which the salmon can always go up (*producing the Plan*).

1471. Lord Colville of Culross.] On what river is that?
On the Ayr; one of the six rivers.

1472. Chairman.] You have not, I think, answered the Duke of Richmond's question why the association interested in those fisheries have not enforced the existing law, which requires the construction of a slap or opening in each of those dykes?

Because it falls on parties who are not able to afford it.

1473. Duke of Richmond.] Is your association so poor that you could not have afforded to enforce the law?

I believe we could not have afforded it; there would have been a resistance at every dyke.

1474. Earl Innes.] Are there any dykes near the mouth of the river Doon?

There is one very bad dyke just at the sea, also No. 1 in the River Irvine, and No. 1 in the River Girvan.

1475. Is it not the fact that that dyke at the mouth of the Doon was removed by an order of the Court of Session some time ago?

The stake nets were interdicted, not the dyke; and the parties were overpowered by the threatening of more litigation, and the breach of the law was compounded.

1476. Is it the fact that those stake nets have been replaced again?

They are partly replaced and existing to this day, because private parties could not go on fighting.

1477. Are those stake nets replaced on the ground where they formerly stood?

Nearly the same.

1478. Chairman.] Could statutory slaps be easily made, so as not to be detrimental to the water power of the various mills?

The plan already produced of dyke No. 1, on the River Ayr, shows how that can be done. Leave the existing dyke at its old height and build a subsidiary dyke a little distance below, each dyke having proportional slaps. In that way the miller has nothing to complain of.

1479. Are you able to show by a tabular statement the necessity for putting those dykes into proper order?

I am able to show that there are natural causes aggravated by the new system of drainage why they must be put in order, or the salmon rivers are gone. Here is a statement of the rainfall of the river Doon. We have not carried on the observations long enough to make the law absolute, but as far as we have gone the result is that for the greatest part of the fishing season, from the 1st May to the 14th September 1856, the dykes were all passable only on 34 days; in 1857, no day; in 1858, 31 days; and in 1859, 11 days. Although many salmon fishers consider that it matters little what the dykes are

are in the summer, provided they are open in the winter to let the fish up to breed, this table shows that the two driest months in the year are March and April, when the fry and smolts are going down, and that the two next driest months are September and October, when the breeding fish are going up. That shows the interest which the breeders have in keeping the dykes passable in winter for the breeding fish to get up. The spent fish come down in April and May. I have also a plan showing a dyke where we once lost 60 salmon which went down the lead of the mill, the dyke being impassable, and were killed by the wheel, and another plan where, from the dyke being impassable, the ascending fish entered the tail of the mill, and were there lifted out. This table, which I will put in, shows the effect of the increased drainage upon the rivers, in increasing the difficulty of breeding salmon.

E. Cathcart, Esq.
13th June 1860.

The Witness delivers in the following Table.

RAIN FALL and relative State of the DAM DYKES on the River Doon, during the last Four Years, from Observations taken daily at 9.30 A.M. at Auchendrane House, Four Miles south of Ayr, and 94 Feet above the Sea Level.

(The Rain Gauge is 2 feet 3 inches above the surface of the ground.)

RAIN FALL, in Inches.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL Rain Fall.	Monthly Average.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
1856 -	2.39	3.67	- -	0.85	4.79	6.89	3.01	5.09	2.52	1.71	1.90	6.35	39.17	3.26
1857 -	3.65	2.77	3.22	2.05	1.81	3.88	2.52	1.64	2.96	2.99	3.97	4.38	35.34	2.94
1858 -	4.98	1.24	2.45	2.55	4.43	4.16	5.30	2.49	5.50	4.91	1.11	3.83	42.95	3.58
1859 -	5.74	6.06	5.55	4.35	0.12	1.75	4.00	5.89	5.61	3.03	3.32	3.62	49.58	4.13

MONTHLY AVERAGE of Four Years' RAIN FALL; the Months being numbered in the Order of their Dryness, from 1 January 1856 to 31 December 1859.

Numbers.	Months.	Monthly Average.
		<i>Inches.</i>
11 -	January - -	4.19
6 -	February - -	3.43
4 -	March - -	2.80
1 -	April - -	2.45
2 -	May - -	2.66
10 -	June - -	4.18
7 -	July - -	3.71
8 -	August - -	3.78
9 -	September - -	4.15
5 -	October - -	3.16
3 -	November - -	2.70
12 -	December - -	4.54

From this it appears that April and May are the two driest months; November stands third, and October is fifth in order.

October and November are the ascending months of the breeding fish; April and May the descending months of young smolts and spent fish. Hence the importance of the dam dykes being passable by slaps or otherwise during these four dry months, when the river is low.

GREATEST PORTION of the FISHING SEASON, between 1 May and 14 September.

1856 -	The Dykes all passable on only 34 days.
1857 -	Ditto - - - ditto - - - no day.
1858 -	Ditto - - - ditto - - - 31 days.
1859 -	Ditto - - - ditto - - - 11 days.

When the water of the river stands at No. 9 on the River Gauge, all the dykes are passable.

FISHING YEAR, from 1 February to 31 January.

1856 -	Fishing Season, of 226 days; only 50 when Dykes were all passable.
1857 -	Ditto - - - ditto - - - 83 - - ditto.
1858 -	Ditto - - - ditto - - - 61 - - ditto.
1859 -	Ditto - - - ditto - - - 96 - - ditto.

CLOSE TIME, 14 September to 1 February.

1856 -	Close Season of 139 days; only 72 when Dykes all passable.
1857 -	Ditto - - ditto - - 72 - - ditto.
1858 -	Ditto - - ditto - - 84 - - ditto.
1859 -	Ditto - - ditto - - 96 - - ditto.

These days, when all the dykes are passable, consist principally of the 62 days of the two wettest months in the year, December and January.

E. Cathcart, Esq.

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1480. Will you proceed with your description of the present state, and the alterations that it would be expedient to make in the dykes of the mill leads?

Each of the rivers has been surveyed by order of the committee, of which I am the chairman. There are on the Garnock, 11 dykes; on the Irvine there are 31 dykes; on the Ayr, there are 16 dykes; on the Doon, there are 12 dykes; on the Girvan, there are 9 dykes, and on the Stinchar there are 2 dykes. There are no statutory slaps in any of those 81 dykes, excepting in the newly erected dyke, of which I have put in the plan on the Ayr and one, No. 5, on the Girvan.

1481. What alteration in the law would you suggest, because it appears that at present, under the existing state of the law, the slap ought to be made?

I would give a new mode of enforcing the law.

1482. What would that mode be?

I would have an inspector, just as there is under the Factory Act, to see that the law is enforced.

1483. Do you mean, that you would throw upon the public the expense of enforcing the law?

I would.

1484. Lord *Stanley* of Alderley.] What is the present mode of enforcing the law?

By private parties.

1485. What is their mode of enforcing the law; must they apply to the Court of Session, or is there any summary mode of proceeding by which the law can be enforced requiring these openings to be made?

It is by ordinary action; you must run the chance of an appeal through all the courts; few would be inclined to undertake that expense.

1486. What are the Committee to understand in your opinion would be the best mode of enforcing the law; should it be by means of an inspector on the river, or by some proper officer whose duty it should be to see the law enforced; or by some summary process before the sheriff?

Something like an inspector of factories. First let him know what the law is, and then let him go about to see whether it be observed; and in case of necessity he should prosecute.

1487. Before what tribunal should he prosecute?

Before the Sheriff; the nearest local court.

1488. Would you propose that the Sheriff should have power to inflict a penalty upon a person violating the law?

Certainly.

1489. Duke of *Richmond*.] Why should not you make the Procurator Fiscal prosecute?

It might be done.

1490. Would not it be very easy to enact, that upon the complaint of the policeman who protects the river to the Procurator Fiscal, the Procurator Fiscal should carry the law into execution?

It might be done.

1491. Do not you think that people in Scotland are much more afraid of a prosecution that is commenced by the Procurator Fiscal than they are of any other?

They do not mind much private parties bringing them before justices of the peace.

1492. At the present time could not you complain to either of the sheriffs, that those dykes had not a statutory slap; and would not the sheriff, after hearing both sides, instantly order the slap to be made then and there, without the necessity of going to the Court of Session at all?

The other party would have denied the fact; there must then be proof taken, and the parties would then get into a regular action, and there would be a power of appeal to your Lordships' House.

1493. Is

1493. Is there any difficulty in proving that there is no slap in a dyke, if there is not one? *E. Cathcart, Esq.*

13th June 1860.

There is no difficulty in proving that fact.

1494. Might not the sheriff go and look at the dyke himself?

Yes, but there is a clause in the Act of Parliament of 1689, chapter 33, which gives an opening to lawsuits; because it says, that every dyke shall have a slap so-and-so, provided it does not interfere with the existing mill-power. Whenever you propose to meddle with the dyke the miller comes upon you with that question.

1495. Lord *Stanley of Alderley*.] I understood you also to state, that there is an appeal in all these cases to the higher tribunals, and even to the House of Lords?

Yes; they may come, in certain circumstances, up to your Lordships' House.

1496. *Chairman*.] Some of those mills are for manufacturing purposes, are they not?

Yes; a good many of them.

1497. Do not deleterious matters flow into the river from some of the mills?

Yes, the River Irvine is nearly a common sewer now.

1498. There being a large quantity of town sewage flowing into it?

A great deal from the town of Kilmarnock.

1499. Would you attribute any of the falling off in the quantity of salmon taken in the Ayrshire rivers, partly to the deleterious matter that flows into those rivers from manufacturing mills?

Partly.

1500. But principally would you attribute the diminution in the take of salmon in those rivers to the increased number of stake and bag nets?

I think so, beyond all doubt; because the rivers are not now in a condition to encourage breeding. They are destroyed by the neglect of the upper heritors. In Ayrshire, these small rivers have been crushed. Your Lordships will see from the plan I first produced how the mouths of the rivers are blockaded with fixed nets. There is not, I believe, a single inland river fishing now in the valuation rolls of the county of Ayr. There are 29 stations on the sea shore, of which 23 are at present producing rent; but the whole of the inland river fishings are annihilated. There is scarcely a net in the whole but my own, which I keep for the purpose of procuring statistics.

1501. Has there been an actual falling-off in the quantity of salmon taken, or has there been merely a transfer of the fish from the river fishings to the sea-coast fishings?

There has been a falling-off, and not a transfer. I think if it was a mere transfer, the public would have no interest in the question; but there is a decided falling-off, as we have statistics to show. In fact, there are no further statistics required than the simple fact that six rivers, containing 150 miles of good salmon waters, besides their tributaries, are in an unproductive state.

1502. Is that because a sufficient quantity of salmon do not get up the rivers now for the purpose of spawning, and thereby keeping up the breed?

Yes; the fixed nets cannot kill what is not created; the fish must be bred first.

1503. Earl *Cawdor*.] Are there any cruives in those rivers?

None.

1504. Lord *Stanley of Alderley*.] I think you stated in a former answer that there had been an order of the Court of Session to remove certain stake nets; when did that order of the Court of Session take place?

Those nets, in 1819, were interdicted by the Court of Session in the following terms: "In respect, it appears, that the stake nets complained of are placed on the sands close to the River Doon, appearing distinctly when tide is out, whereby the judgments in the cases of the fishings on the sands of the Tay and Dornock apply to those complained of, grants interdict as required, &c."

1505. Duke of *Richmond*.] Because they were in the river?

They were not in the river, but near it on the shore.

(135.5.)

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1506. Were

E. Cathcart, Esq.

13th June 1860.

1506. Were they in the estuary, or what was held to be the estuary?

Yes, they were in the Bay of Ayr in the Firth of Clyde.

1507. *Earl Cawdor.*] How far were those stake nets from the mouth of the river?

I do not think they were above 600 or 700 yards; but I cannot be certain at this distance of time.

1508. *Lord Stanley of Alderley.*] Was that order of the Court of Session acted upon, and the stake nets removed at that time?

The Court of Session were unanimous, and the stake nets were interdicted; but there was a composition among the parties. We took fright at another litigation coming upon us, and we compounded the law.

1509. In consequence of that composition the stake nets were restored, were they?

They were either not removed, or were replaced if they had been removed; this case shows the necessity of some proper authority to enforce the law.

1510. If you were able, in 1819, to get an order of the Court of Session for the purpose of removing the stake nets, why is it not competent to you now to proceed in the same manner, and get another order for the removal of those nets?

It is quite competent, if the parties choose to do so.

1511. Why do you require another law upon the matter, if the existing law is sufficient?

I think the law is pretty distinct, but I would have a different way of enforcing it.

1512. If I understand you rightly, that order of the Court of Session would have been effectual in 1819, if you had not been frightened and compromised the matter, and allowed the stake nets to be restored?

Yes.

1513. If there were no necessity to be frightened and compound the case, would not a summary course of proceeding enable you to remove those stake nets?

We might, but we thought it more prudent to compromise.

1514. *Duke of Richmond.*] Would it be necessary for the purpose of removing those stake nets to go to the Court of Session?

I fear it would.

1515. Would it not be sufficient to go to the sheriff, and produce before him the order of the Court of Session that the stake nets are to be removed?

I very much doubt whether that could be done now; an averment would be made immediately that those were not the stake nets which were interdicted in 1819.

1516. *Chairman.*] To revert to the point upon which you were speaking just now, is there anything contrary to the law at present, in permitting the refuse from those manufacturing mills to flow into the rivers?

It is now illegal; for in taking charge of the River Doon we have got several of them put down, and very easily put down.

1517. If the practice of allowing deleterious matters to flow into the rivers is contrary to law, why do you permit that practice to continue?

Because there is no power to enforce the law, except by private individuals.

1518. *Duke of Richmond.*] Is it not very difficult to prove that the millowner does use deleterious substances?

Yes, in some cases; in one case the head bailiff on the Doon watched a miller discharge the refuse into the river, and he followed the stuff, and took up a great many fish that were poisoned.

1519. *Lord Stanley of Alderley.*] What was that material?

It was the washings from a woollen mill.

1520. What was the material used, which you considered was injurious to the fish?

It

It was, I believe, waste suds containing chloride of lime, or chloride of soda mixed with grease and filth from the wool. *E. Cuthcart, Esq.*

1521. Lord *Colville* of Culross.] Do you consider sheep washing destructive to the fish? 13th June 1860.

I do in small rivers.

1522. In the Girvan and other small rivers, where they wash sheep, is it not very destructive to the fish?

Yes; we prevent it if possible.

1523. *Chairman*.] Can you suggest any amendment of the law with respect to deleterious matters flowing into the rivers from the mills?

I think the law is pretty clear upon the subject, but we want a different mode of enforcing it; I have no change to propose.

1524. Lord *Colville* of Culross.] The rivers Ayr and Irvine ought to be very fine salmon rivers; do not you think they are principally destroyed, in consequence of the deleterious matter which is thrown into them?

It does injure them very much, but the principal destruction arises from the fixed nets on the sea-shore.

1525. Do many salmon go up the Ayr and Irvine?

None now ascend the Irvine; but since the building of the improved dyke on the Ayr, a few go up that river, but so completely is the Ayr devoid of salmon, that the tacksman of the bag nets, at the mouth of the river Ayr, does not think it worth his while to fish the river at all.

1526. Is there any rod fishing in the Ayr now?

No salmon rod fishing.

1527. Lord *Stanley* of Alderley.] Do you know anything of the Clyde?

I have fished salmon with the rod in the Clyde.

1528. Do you know whether any salmon are caught above Glasgow?

No; there were some nets below on the coast, which have been given up, because they depended upon the Clyde fish, and they were starved out.

1529. Earl *Innes*.] What was the date of the establishment of stake nets upon the Ayrshire coast?

I think they began first on the Doon, shortly before 1819.

1530. Has the take of salmon decreased in the neighbouring rivers since those stake nets were first introduced?

Enormously, in the rivers.

1531. *Chairman*.] Are you able to say how many fishing stations there are now on the coast of Ayrshire?

There are 29.

1532. What is the extent of coast upon which those 29 stations are situated?

Seventy miles; there are 23 stations fished this year with two stake nets, and about 70 bag nets.

1533. Could the fishing be carried on by means of the net and coble at the whole of these 29 stations?

I am not able to say that it could; but at a great many places along the coast there is sufficient space to permit a large use of the net and coble.

1534. Earl *Innes*.] Are not the bag nets placed beyond the end of the stake nets, in continuation of them?

The fixed net men first began with the stake net; that drove the fish farther off; then they got the bag net, and when they found the fish still getting shyer and going further out to sea, and scarcer, then they put a stake net first and a bag net at the end of it; now they put the bag nets on the end of each other, so that they go 500 yards into the sea, and when a shoal of fish comes, they break that shoal up.

1535. Do not you consider that the multiplication of these stake and bag nets on the coast near the mouths of the Ayrshire rivers is the real cause of the decrease of the take of salmon in the rivers?

Undoubtedly, that is at the bottom of the whole evil.

E. Cathcart, Esq.
 13th June 1860.

1536. Although the introduction of deleterious matters into the rivers operates prejudicially to the breed of salmon, yet you consider that the multiplication of these stake and bag nets is still more prejudicial?

The stake and bag nets are the basis of the whole evil; but I am not prepared to say that the removal of those nets alone will do. Along with the removal of the nets there must be an improvement of the dykes by enforcing the Statute of 1689, c. 33, or some similar enactment, and enforcing the sanitary laws in the rivers.

1537. Lord *Colville* of Culross.] Are there any cruive dykes in Ayrshire? None.

1538. Has not Lord Ailsa the power of putting in cruives, if he chooses, by charter?

It is said so; but I never saw the charter.

1539. Is not it an understood thing that Lord Ailsa may put in cruives if he chooses?

The other heritors deny it.

1540. Duke of *Richmond*.] Is there a great deal of poaching in the Ayrshire rivers in the black season?

Of course there is, because the upper heritors do not care, having been, as they consider, robbed of their interest in the salmon fishings, they will not do anything to protect them.

1541. Supposing the upper heritors did care, is there not rather a wild population to prevent from poaching in the county of Ayr?

We would give the proprietors a pretty free use of the rod, and interest them in the preservation of the fish.

1542. Is there not in the county of Ayr a very large mining and manufacturing population?

On the Rivers Garnock, Irvine, and Ayr there is.

1543. Are not there a great many strangers who come to work at the mines in the county of Ayr during the year?

Yes.

1544. A great many Irish?

Yes; there is one of these works upon the River Doon, but we found that one man kept them in check.

1545. Would you like to try and keep them in check on the River Ayr with one man?

If one man can do it on the Doon, I do not see why one man should not do it on the Ayr.

1546. Earl *Cawdor*.] You say that the upper heritors do not care about the preservation of salmon; why is that?

It is because they found that the fixed nets killed almost everything, and they said, We shall not preserve, because we have no more interest in the matter; and from that has arisen all the other evils in the internal parts of the river.

1547. In those rivers in which there are cruives, do not they prevent the ascent of the fish quite as much as the bag nets?

Of course the cruives must come out if the fixed nets come out.

1548. The fish may go round a stake net, but it cannot get up a river where there is a cruive?

Generally not; but the cruives are not so bad as the mill dykes, because the cruives must be opened from Saturday evening till Monday morning, and the hecks must be of a certain size to let through, at all times, the smaller fish.

1549. Lord *Stanley* of Alderley.] Do you think it would be practicable to enforce the Sunday slap in the bag and stake nets?

I do not think it is practicable. But if fixed nets are to be allowed, I would permit them to fish continuously without enforcing the Sunday slap; and I would close the season for fixed nets proportionally earlier than for the net and coble.

1550. So

1550. So that you would stop the fishing by stake and bag nets a month earlier than it is at present stopped?

E. Cathcart, Esq.

Yes, because they get a month more than other nets, from fishing on Sundays.

13th June 1860.

1551. *Chairman.*] Are the tacksmen of those fishings, generally speaking, favourable to the present system, or would they be willing to consent to a modification of it?

There are various opinions amongst them. On the present occasion a person was employed, with an assistant, to inspect both the rivers and the stake nets in Ayrshire, and that person has made a report both on river fishing and fixed nets; what he says on fixed nets is contrary to my opinion; but with your Lordships' permission I will put that report in. The committee who caused this report to be made is a general committee, comprising parties interested in the sea fishings and others interested in the inland river fishings; and I would like them all to be heard. Mr. M'Creadie, who made the report, is well acquainted with these things, and was appointed by the committee of which I am the chairman, to take that special subject under his notice.

The Report is delivered in (*vide Appendix*).

1552. Lord *Stanley* of Alderley.] What is the substance of that report; is it a recommendation to do away with stake nets, or a modification of the system?

It is, contrary to my own opinion, in favour of stake nets to a certain extent.

1553. Is Mr. M'Creadie a person largely engaged in stake net fishing? He has eight or nine fixed net stations on lease.

1554. *Chairman.*] The person whose report you have put in is of opinion, that only a certain number of bag and stake nets should exist at the stations at which they are situated, and that the employment of those bag and stake nets should be allowed to continue; is not that so?

Yes.

1555. Earl *Cawdor.*] Was this report made in consequence of any authority given by your committee?

Yes, it was a report to me as the chairman. It is a complete report upon the whole of the salmon rivers in Ayrshire, and the whole of the fixed net stations.

1556. Earl *Innes.*] Have the proprietors of stake nets grants of salmon fishings from the Crown?

I cannot answer that question; but the belief is that they have no grant.

1557. No charter whatever?

It is believed so.

1558. Earl *Cawdor.*] No grant of fishery whatever?

No grant of fishery on the sea-shore; it is believed so, but my evidence must be taken only to that extent.

1559. Lord *Stanley* of Alderley.] Do the sea fishings chiefly belong to the proprietors of the neighbouring shores, or in any cases do they belong to persons who are not the owners of the adjacent land?

The proprietor of the neighbouring shore generally lets the fishings, and the man who takes them does not ask any questions. I formerly used a stake net on my own property on the Firth of Forth. I was challenged by the Crown agent, and I said, "Oh, if you wish it I will remove the net; I have no right."

1560. From whom did you take that fishing?

I was the owner of the land adjoining the sea-shore.

1561. You had no grant, or charter, or lease from the Crown?

None; and when the Crown agent called my attention to it, I removed the net. The first thing that should be done is to clear the way and see who have rights and who have not to salmon fishings.

(135. s.)

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1552. *Chairman.*]

E. Cathcart, Esq. 1562. *Chairman.*] Do you think the employment of stake and bag nets could be prohibited without injustice to the proprietors and lessees of these coast fishings?
 13th June 1860.

I do not think that the proprietor has, in justice, any claim; I consider that the salmon fisheries of Scotland are a matter of public policy and national importance; all preceding changes have been hitherto justified on that principle, and have taken place upon the footing that the public have an interest in the salmon fishings, and that that interest is a paramount one, and any man who holds salmon fishings must be considered to hold them upon that condition.

1563. *Earl Innes.*] I think you stated that these fishings which are now worked by stake nets were worked by net and coble previously?

A great many of them are capable yet of being worked by net and coble.

1564. *Chairman.*] Have any particular modes of fishing practised on the sea-coast been at various time prohibited by the Legislature?

Yes. At one time there were no nets allowed in the Scotch fisheries but the common drag net and the net and coble; after that cruives on the rivers were allowed, and yairs on the sea-shore. These, in their turn, were prohibited altogether or severely restricted. The introduction of stake nets, in like manner, was based upon the principle of the public interest (as was then supposed) in the increased take of fish by that mode; but after a long trial, that mode of fishing has proved a complete failure, and the markets are not so well supplied as they would have been by using the net and coble; and moreover, by the employment of the stake and bag nets you have lost the rivers in Ayrshire as sources of breeding and production.

1565. *Lord Lovat.*] Are not you aware that some of the oldest charters of fisheries granted cruives in rivers?

I am aware that they were granted; the party who got those cruives was superseding a previous right. I never heard of any compensation being given; it may have been done; I will not answer for that, but every new grant implies that there is a previous right superseded by it.

1566. *Lord Colville of Culross.*] You have stated that you are one of the committee in Ayrshire for the purpose of protecting the river fisheries?

Just now I am the chairman of a committee that was gathered together to prepare evidence for your Lordships; I was chairman also of a committee before that.

1567. Where was that committee before?

On the Doon.

1568. Was Lord Ailsa a member of that committee?

Yes; and Lord Ailsa encouraged it very much.

1569. Was not there an agreement between Lord Ailsa and the other heritors on the Doon, which existed for 10 years?

Yes.

1570. Was that arrangement considered satisfactory during the time it existed?

We gave everything a fair trial under that arrangement, but we found that there were two obstacles that were quite insuperable. We got reports as to the river, and everything done that could possibly be done; the obstacles were the stake nets at the river's mouth and along the sea-shore, which are marked on the map, and the dam dykes. We had arranged to get proper dam dykes, and we were going to begin them, but we found that his Lordship would not remove the fixed nets. Then we held a meeting, and we said, It is no use our pressing his Lordship to remove the fixed nets so long as the other nets remain on the coast, because the fish travel along the coast, and as long as there are those nets it is utterly impossible for us to do anything effectual in improving the river.

1571. When you made that agreement in 1849 with Lord Ailsa, were not certain terms proposed and agreed to?

Yes.

1572. Those terms were kept, were they not, throughout?

They

They were kept so far, except as to the dykes and fixed nets. The arrangement has now ceased, and there is no protection at all. I fished the whole of last year by a net, for the purpose of collecting statistics, and I killed two fish; this year I have fished with the net, and have killed one fish. In the year 1819, when the rental of the Doon was taken as the basis of a rate, each station was valued, and my fishing was put down at 30%; it is now nothing. The rental of the whole 16 stations in 1819 was 557*l.*, and the rental in 1859 was 256*l.*, showing a decline of 300% from 1819 to 1859 upon the river Doon. I have a statement of the annual catch of salmon at Lord Ailsa's fishings at the mouth of the Doon, supplied me by the heirs of the former tacksman during these years, from the year 1811 to 1825, a period of 15 years. The weight is not given, but the average catch then was 809 salmon each year, and 1,300 grilse; and if as many fish were caught now the rent would be very different from what it is, because the price of salmon since 1825 has about doubled.

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1573. In 1859 Lord Ailsa was willing to renew the agreement, was not he?
Yes.

1574. But he declined to do so, because the upper heritors would not give up net fishing in the river. Is there not net fishing in the upper part of the Doon by the upper heritors?

In order to give the arrangement the fairest trial possible, the whole of the heritors, including Lord Ailsa as an upland heritor, agreed to renounce nets of every kind in the upland waters of the Doon, and they did renounce them for the 10 years before-mentioned; but, for all that, the reserved rod-fishing actually was worth nothing, principally because of Lord Ailsa keeping in his nets all the time at the river mouth and on the sea-shore, as well as other parties along the sea-shore.

1575. That was part of his agreement?

Yes; but that disclosed to us at once the seat of the evil, namely, the fixed nets.

1576. Lord *Lowat*.] Do you know the rent of these nets in the sea?

The whole of Lord Ailsa's fishings let now for 256*l.*, in 1819 they let for 321*l.*, and in 1811 for 500*l.*

1577. The stake nets and the river?

Yes; the rental of this single river in the year 1819 was 557*l.*, and the rental of the 23 stations along the sea-coast of Ayrshire is at present only 853*l.*; so that this little river produced in 1819 considerably more than half as many salmon as that river and the whole of the other stations along the sea-coast and in the rivers of Ayrshire produce now in 1860.

1578. Have you the rentals of the other rivers in Ayrshire?

No, I have no separate data upon that subject.

1579. Duke of *Richmond*.] You have spoken of the reduction of the rents in the rivers in Ayrshire; is there any other cause to which you can attribute the reduction, except the falling off of the number of salmon and grilse?

No other cause.

1580. Is not there an assessment to the poor from fishings now which was not formerly the case?

There is no valuation on any of the fishings in the rivers now.

1581. Why not?

Because they are all destroyed.

1582. That is, there is no fishing?

There is no fishing.

1583. Does not a lessee of salmon fishing in Scotland pay poor's rate upon his rental?

I have no doubt that the sea fishings are rated upon the rental, but we have no rental on the river fishings, because they are all annihilated.

1584. Is it your opinion that the only mode of fishing for salmon in the estuaries and in the rivers in Scotland is by the drag net and net and coble exclusively?

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I am decidedly of that opinion ; it puts all the fishermen upon an equality. There are, no doubt, places on the sea-shore which cannot be fished by that means, but there are places in the rivers also where you cannot fish by drag nets.

1585. Lord *Lovat*.] Is the expense of fishing by stake nets and bag nets greater or less than the expense of fishing by net and coble ?

I am told that it is two-thirds dearer ; it depends much upon the character of the coast. In some situations it requires 30*l.* to go as far with stake and bag nets as 10*l.* will go with other nets.

1586. Earl *Ducie*.] You say that formerly, on the coast of Ayr, before these stake and bag nets were established, the net and coble were in use ?

Yes.

1587. Were there more fish caught then with the net and coble, than are caught now with stake nets ?

Yes, I think so, because if the same quantity had been caught in 1860 as then the rents must have risen greatly, owing to the higher price of salmon, instead of falling

1588. You cannot speak authoritatively upon the subject ?

No ; because we would require to see exactly what they did before the stake nets came in.

1589. Duke of *Richmond*.] If formerly quite as many salmon were caught with the net and coble as are now caught by the stake nets, what have the stake nets to do with prejudicing the breed of salmon ? Is this what you mean, although you have not expressed it, that there are so much fewer fish now in existence, that fewer are caught than used to be caught formerly ?

Yes ; the mode of catching by fixed nets tends rapidly to extirpate the breed. There are now 150 miles of river in Ayrshire, excluding the tributaries, sacrificed to 70 miles of sea-shore. Now, as both the sea-shore and rivers are capable of being fished by the drag net and net and coble in many places, you have 220 miles capable of being worked for the markets by these methods instead of the present 70 ; and while allowing the 220 miles to be worked, you get your rivers into good order and the breeding well kept up, whereas by persevering in the present method of fixed nets for the 70 miles you will lose the breeding altogether, because no upper heritor will ever pay the least attention to the breeding.

1590. Earl *Innes*.] Are not the fish now destroyed before they enter the rivers ? They are ; at least a great number are.

1591. Earl *Ducie*.] Does not it come to this, if the net and coble on the coast formerly caught as much fish as the stake net catches now, you had the catch in the inland waters to add to that amount ?

Yes.

1592. *Chairman*.] Although there are some places on the coast where the drag net and the net and coble could not be used, you are of opinion that there is abundance of space in which a sufficient quantity of salmon could be caught for the supply of the market, as well as permit the breeding fish to enter the rivers ?

Yes, abundance, and with perfect fairness to all parties, as there are certain portions of the rivers as well as of the sea-shores, where you cannot use a drag net. I have two miles of fishing in the Doon, where I can only fish two pools with the drag net.

1593. Duke of *Richmond*.] Where is the salmon that is caught in Ayrshire generally sent ; is it sent to the London market or to Glasgow, or to the large manufacturing towns in Ayrshire and Lanarkshire ?

It goes to Glasgow.

1594. Is there much of it comes to London ?

No, none of our fish come to London ; Glasgow consumes the whole, and some from the Irish rivers as well.

1595. Lord

1595. Lord *Stanley* of Alderley.] Can you put in a return of the number of fish caught in the Ayrshire fishings altogether?

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I have no means of getting all the returns, though I have furnished some particulars as to the state of the river Doon.

1596. You have not been able to procure a return of the quantity of fish sent to Glasgow?

No, there are so many fish coming in from other quarters, the Ayrshire fish are not kept distinct in the market returns.

1597. Do not they know at each of the fishings, how many boxes they send to Glasgow in the course of the year?

We could not get at the truth of it; they would not tell us that.

1598. You have no accurate data on which to proceed, in showing that the salmon fishings have decreased?

I think I have already given some reliable data, but it is clear that if breeding cease in the rivers, the number of fish, and consequently, the catching must decrease.

1599. You have no returns to show the decrease?

No, not the exact amount of decrease.

1600. Lord *Lovat*.] Have the rents of the stake nets increased or fallen off? I understand that they have fallen off generally.

1601. To a great extent?

To a considerable extent: Lord *Stair*'s fishings in and at the mouth of the Stinchar River and adjoining sea-shore, from 1825 to 1853, let at from 200 *l.* to 220 *l.* a year; in 1854 the rent fell to 130 *l.*, and for the last two years has been 140 *l.*; and as the prices have been extremely high, the scarcity of fish must have been much greater than even the above reduction of rent indicates.

1602. *Chairman*.] Do you think the meshes of the nets used in salmon fishings should be larger than is the case at present?

Yes.

1603. What do you think the size of the mesh should be?

Adopting the same principle as has been adopted for the protection of the herring fishery, where you allow one inch, I would allow for the protection of the salmon fisheries two inches or two-and-a-half inches.

1604. Earl *Ducie*.] From knot to knot?

Yes; they have allowed an inch and three-quarters from knot to knot or seven inches round, in the last Tweed Act. Nets are still more fatal in small rivers than they are in large.

1605. *Chairman*.] Have you any suggestion to offer to the Committee with regard to the close time; do you think the present close time is sufficient?

There was an old close time in Scotland which they had from the first of our fisheries, namely, the 26th of August; I would take the 26th of August as the beginning of the close time, and end it on the 1st of February; until lately the close time has always been general for all rivers alike in Scotland.

1606. Lord *Stanley* of Alderley.] Would you allow any additional time for rod-fishing, after the nets have been taken off the rivers?

I would allow the rod-fishing to continue, as they have done in the Tweed Act, to the 1st of December. I would give them all October and November, provided only that they fished with the fly; that they did not sell, and that they returned to the rivers all foul salmon.

1607. Viscount *Hutchinson*.] You would prohibit the use of the gaff, I suppose?

I would prohibit the gaff. It is very desirable to induce proprietors and their friends to frequent the river sides during the month of October and November; December and January are the two wettest months in our country, and there is less danger of poaching in those two wet months, because the rivers are large.

1608. Lord *Colville* of Culross.] Have not the rivers in Ayrshire been considered

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sidered by some persons as exempt from the general Act with regard to rod-fishing, because they are rivers south of the Tweed?

They are in the same latitude as Morpeth. By the Tay Act, the rod-fishing is allowed to the 30th September only, and by the Annan Act to the 31st October.

1609. Has not there been a fishing association formed on the River Garnock?
 Yes.

1610. Has that been successful?

It has not been successful owing to the fish being blockaded at the mouth of the river; the fishings were let for five years for rods for trouting. It used to be a very good salmon fishing river.

1611. *Chairman.*] Have you any other amendment of the law to suggest?

I would recommend the appointment of inspectors to enforce by summary procedure the observance of such fishing laws as shall be established, in whose name all legal proceedings shall be conducted, to prevent the public law being compromised by private agreement between parties.

1612. *Viscount Hutchinson.*] Would not that law be an anomalous proceeding in a country like Scotland, where salmon fishing is entirely a matter of private right?

We do not consider it by our law a matter of mere private right, we consider it a matter of national importance; it has always been made the subject of special legislation by statute.

1613. Are not all rights of salmon fishing in Scotland originally derived from the Crown?

Yes, but the Crown has varied the conditions of that right for above 400 years, in various ways.

1614. There is no such thing in Scotland as a public right to salmon fishing?

No, not as in Ireland; I think it would be a good thing to enrol all the salmon fishing rivers according to their catchment and rain-fall, because that shows the power of the rivers as salmon producers.

1615. *Earl Ducie.*] Do you mean the catchment basin?

Yes. I have a map showing the catchment area of all the six salmon rivers of Ayrshire, as follows, viz.:

	Catchment basin.	Rain-fall in
Garnock	96.2 square miles	inches.
Irvine	185.9	about 41.76.
Ayr	226.8	
Doon	129.5	
Gorvan	101.8	
Stinchar	134.9	

1616. *Viscount Hutchinson.*] Are you familiar with the Irish system of regulating salmon fishings?

No, I have read books upon it.

1617. You are aware that there are conservators elected by persons interested in the fishings in the various rivers, whose duty it is to look to the preservation of the fisheries?

Yes.

1618. Do you think that any system analogous to that could be established in Scotland?

We have a system analogous to that under the present salmon law, which may act well in the large rivers, but it unfortunately happens that we cannot do anything without a majority in number and value; and in a small river the value is always with the person at the mouth of the river, who, having different interests from the proprietors above, the number and value are always counteracting each other, and nothing is done.

The Witness is directed to withdraw.

JAMES GRANT, Esquire, is called in, and examined :

1619. *Chairman.*] YOU are Provost of Elgin ?

I am.

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1620. And you were also for many years lessee of a portion of the fishings on the Rivey Spey ?

I was.

1621. I think your lease expired in 1859, did it not ?

It did.

1622. At that time had the quantity of salmon decreased, as compared with the quantity taken at the commencement of your lease ?

Considerably.

1623. To what cause do you attribute that decrease ?

To over-fishing in the lower part of the river, and also on the sea-shore.

1624. Do you include, as one of the causes, the use of the stake and bag nets ?

Yes, and the sweep nets also, and cruive dykes.

1625. What are the spawning months in the Spey ?

October, November, and December are the principal spawning months.

1626. Duke of *Richmond.*] How far from the cruive dyke up the river were the fishings of which you were the lessee ?

About six miles.

1627. How far above Mr. Gilmour's fishings ?

I adjoined his immediately at Craigellachie.

1628. How far did your fishings go up the river ?

To Carron.

1629. How many miles is that ?

About three miles.

1630. You never fished it with nets, did you ?

No, only by angling.

1631. *Chairman.*] On the Spey, have you known of spawning beds ?

I have had little means of observing the spawning near the sea, but to the best of my belief, I have known of no spawning within three miles of the sea.

1632. You do not believe that the salmon ever spawn in the sea, do you ?

I do not believe that.

1633. Do you believe that the salmon often go to the rivers for any other purpose than that of spawning ?

Not unless they go up in the flood, and finding the water get too small for them, then they fall back into the sea.

1634. Earl *Cawdor.*] You said your fishings decreased during the time that you held them, to what do you attribute that principally ?

The over-fishing below.

1635. In what manner, by stake nets, or bag nets, or cruives ?

I could not attribute it to any one of those causes ; I believe it was from a combination of the whole.

1636. Duke of *Richmond.*] Do you think the want of protection in the upper part of the river in the close time was any cause of the diminishing ?

I do not attribute it to that ; I think the river has been better protected towards the interior of late than has been the practice for many years past.

1637. Is it not notorious that there is a great deal of poaching during the close season in the tributaries of the Spey ?

A very considerable portion.

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1638. You

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1638. You have distilleries, I think, at Rothies?
 I have.

1639. Has not the proprietor of the Spey felt himself called upon to have a band of bailiffs at Rothies to look after the Rothies and Craigellachie people?
 Yes.

1640. Is not the Fiddich the first tributary in which there is the most spawning?
 Yes.

1641. Is the Fiddich very difficult to protect from its precipitous banks being covered with wood?
 Yes, they are covered with wood.

1642. Is it not notorious in the country that, until perhaps within this last year or two, the blazing of the tributaries was very nearly of nightly occurrence?

I know it has occurred repeatedly, but I could not say it was so often as nightly.

1643. But very often indeed?
 Very often.

1644. *Chairman.*] Do you consider that the salmon caught in the sea are of superior quality to the salmon caught in the river?
 I do.

1645. Do they fall off in condition in fresh water?
 They fall off daily, I should say, after they enter the river.

1646. After how many days does that deterioration commence?
 I should think it is quite observable in eight days.

1647. *Lord Colville of Culross.*] For the first week or so there is no change in the fish?
 For the first week there is no perceptible change.

1648. Great apathy used to exist in respect to the preservation of the fish in the close season by the upper heritors?
 Very great.

1649. What do you attribute that to?
 Their taking less interest in preserving the fish arose from their having so few fish.

1650. If they got a better supply of fish during the open season, would they be more readily induced to preserve the fish in the close season?
 I think they would use the same diligence in protecting the fish during the close season as they do in protecting grouse and other game.

1651. Does Lord Seafield protect the fish?
 He aids, I think, in doing so, so far as he can without going openly to it.

1652. *Duke of Richmond.*] Do you think the rafts of timber which come down the Spey are detrimental to the fishing going up?
 I do.

1653. Do you know when the rafts are entitled by law to come down the Spey?
 I think they are entitled to commence in September, and they carry on until the 1st of May, or some time in May.

1654. Are there not a great many rafts coming down the Spey?
 Many thousand of tons.

1655. *Lord Stanley of Alderley.*] Do you think the rafts prevent the fish from going up the river, or that they create a difficulty in taking the fish?
 They do not so much prevent them going up the river as molest them after they are in the river.

1656. *Chairman.*] Is not the decrease of the salmon partly attributable to the injury done to the spawning beds by the great flood in 1829?
 I believe that the spawning beds since that period have never been so numerous and so fixed as they were before.

1657. Do

1657. Do you think that the quantity of fish that now enters the river would be sufficient for breeding purposes if they were not intercepted on their way to the spawning beds?

I do.

1658. Do you believe that an alteration in the yearly close time is desirable? Very desirable, I think.

1659. At what period do you think the fishing season ought to commence, and at what time to close?

I think it should close on the 12th of August for all permanent nets and sweep nets, and not commence until the 1st of February.

1660. Lord *Stanley* of Alderley.] You have stated to the Committee that you think the quantity of salmon taken has diminished very much of late years; that you attribute to the severity of the fishing; what remedy would you propose in order to restore the fishings to their former state of prosperity?

In the first place I would secure the full carrying out of the Saturday slap.

1661. *Chairman*.] Is not the Saturday slap well observed at present? So far as regards the sea it is scarcely observed at all.

1662. But in the cruive dykes?

In the cruive dykes I do not believe it is fully observed.

1663. Lord *Stanley* of Alderley.] Do you think it would be possible to observe the Saturday slap in the sea fishings in the stake and bag nets?

Yes, I do, by the erection of additional machinery.

1664. Do you think the effect of that would be to enable a very large additional quantity of fish to get up the river, which at present are prevented from doing so?

I do.

1665. Will you proceed to state to the Committee what other course you would recommend for the purpose of improving the fishings?

In the river where the proprietor has the privilege of fishing with the sweep nets for a considerable distance from the sea, it would be beneficial to limit that right in some respects, so as to allow a greater quantity of fish to get up the river, and in particular, if the cruive dykes are to be preserved, that they should be so framed that the Saturday slap would have its full and intended benefit.

1666. How would you recommend that the present law should be enforced, is there any difficulty in enforcing it, and if so, what course would you recommend to enable parties to enforce it more readily?

At present there are some rivers fished very closely for five or six miles nearest to the sea on Saturday to the legal hour for giving it up; on Monday following they commence to fish five or six miles from the sea. The consequence is, that very few fish that leave the sea during the Sunday get beyond that five or six miles, and if the law limited the proprietor of the river fishing, that he could only fish with sweep nets within two or three miles from the sea, of course nearly a half, or at all events a third more fish would get into the river than do when he commences to fish on Monday morning six miles from the sea.

1667. Duke of *Richmond*.] Did you ever hear of anybody fishing on the Spey three miles from the river's mouth with a net and coble?

Yes; if I am not mistaken the cruive dyke upon the Spey is more than three miles from the sea.

1668. As regards the fishing in the sea, if I understand your proposition, it was, that the proprietors of river fishing should not be permitted to fish within a certain distance of the river's mouth?

Not in the sea, but in the river itself.

1669. Lord *Stanley* of Alderley.] Do you mean, in point of fact, that you would have an extension of the Sunday slap, with regard to river fishing, into Monday, or would you have them altogether prohibited; will you explain to the Committee exactly what you mean?

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What I mean is this, that it amounts almost to a complete prevention of the Saturday slap, if you commence upon the Monday morning, six miles from the mouth of the river, to fish downwards and thereby intercept all the fish coming out on the Sunday. If I understand rightly, the Sunday slap was intended to mean that on Sunday the fish which comes out of the river should be allowed to escape.

1670. How would you prevent that?

By shortening the distance within which liberty would be given to fish with the sweep nets from the mouth of the sea, on Monday particularly.

1671. Lord *Colville* of Culross.] Supposing that the Duke of Richmond's fishings were three miles from the sea, you would not allow the Duke of Richmond to fish above his cruive, by sweep nets, on the Monday?

I would not, inasmuch as it would multiply the quantity of the fish.

1672. Duke of *Richmond*.] Would it not be the shortest way to abolish cruive dykes, bag nets, and stell nets at once, and let the fish get up as they can?

That would be the shortest way; but I am afraid parties would not agree to the policy of that.

1673. Supposing that you were a proprietor of fishings three miles up the river, would you like to be prohibited fishing some certain number of days, while your next neighbour would be allowed to catch all the fish which you are prevented from trying to get; would you think that fair?

No; I would not.

1674. Lord *Stanley* of Alderley.] Provided you could reconcile it with the rights of the possessors of stake nets and cruives to abolish them, do you think it would be better for the fishing, and that the same number of fish would be caught by means of the ordinary nets?

I do; and if I had the control, which I never expect to have, of the river fishings, and the contiguous fishings on the sea, I would endeavour so to arrange matters that the fish, after they entered the river, would get as little molestation as possible, believing, as I do, that the fish do not enter the river, except on certain occasions of flood in small rivers, otherwise than for the purpose of going to spawn.

1675. Do you think if that could be done, then the breed of fish would be very much increased; and, at the same time, an equal quantity would be taken by the different proprietors of fishings?

I do; I think that if five salmon more than usual go into the river according to the ordinary computation of fishers, not more than one out of that five is caught by means of angling; and that if the other four are left to breed, the additional number of fish would be immense, and make up for the proprietors of the river fishing allowing more to escape into the river than is done at present.

1676. Duke of *Richmond*.] A man who owns a stake net upon the sea coast, not having any rights upon the river, would lose all that he has got by the abolition of that stake net?

Yes; but I have said if a proper arrangement could be come to between the owners of stake nets on the sea shore and the owners of fishings in the river, I think the interests of all would be benefited by allowing more fish in some way or other to get into the river for the purpose of spawning.

1677. Lord *Stanley* of Alderley.] Do not you think, if this plan could be adopted, that the quantity of salmon would be very much increased thereby, and even the proprietors of the sea fishings would get as large a number of fish by means of the net and coble as they now do by means of the stake and bag nets?

Much more, according to my opinion.

1678. In point of fact, the proprietors of the sea fishings would be equally benefited with the proprietors of the river fishings?

They would.

1679. Lord *Colville* of Culross.] What is the penalty now for non-compliance with the law in respect of the Sunday slap in the cruives?

I could not say the precise penalty.

1680. Do

1680. Do you think it is heavy enough, from what you know ?

I do not think that the heaviness of the penalty would be a sufficient protection to the keeping of the Sunday slap in the cruive dykes ; I think some other mode must be adopted, rather than the infliction of a penalty.

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1681. In a river like the Spey, it is of the greatest possible importance that the cruives should be kept open for the proper time, is it not ?

Yes, I believe that generally they are kept open ; but there are many exceptions, for perhaps one reason more than all the others put together, namely, that the men who are employed to kill the salmon immediately below the cruive dyke on the Monday morning, are in some cases paid according to the number of salmon caught ; of course it is their interest to keep down as many as possible.

1682. Lord *Stanley* of Alderley.] With respect to a question asked you, whether it would not be desirable to increase the penalty, is it not, in your opinion, more important to have a small penalty, with a summary mode of exacting it, than a large penalty with uncertainty ?

I believe it is.

1683. Duke of *Richmond*.] You have said you thought the proprietors of the sea fishings would catch more by net and coble ; are you not aware that in many parts of the coast where there are bag nets and stake nets, it would be impossible for the proprietors to fish with net and coble ?

I have been misunderstood if I led the Committee to understand that net and coble fishings could be successfully used in the sea ; I understood stake nets were referred to.

1684. Are you not aware that there are a great many stake net and bag net fishings upon the coast (I am not alluding to your own county of Morayshire) in Scotland, where you could not use net and coble at all ?

I am.

1685. Lord *Stanley* of Alderley.] Then the answer to the former question which you gave, would only apply to those cases where the net and coble could be used where the stake and bag nets are now used ?

In place of stake nets.

1686. In places where the net and coble could be used, you think that the sea fishing proprietors would obtain as many fish by that means, as they do by their stake nets ?

Yes.

1687. Lord *Colville* of Culross.] Are there many salmon going up the Lossie now ?

A few ; it is rather small. It is rather small for salmon ; there are a great many mill-dam dykes across it which makes the river almost dry except what passes through the mill race.

1688. I suppose the sewerage from the town of Elgin does not improve the Lossie as a salmon river ?

No ; nor the refuse of the gas works going into it ; but it never was a good salmon river.

1689. Would it be worth while enforcing the law with respect to those nuisances ; would it improve the river ?

It would improve the number of the fish.

1690. Have you ever considered the question at the town of Elgin ?

Yes.

1691. *Chairman*.] Is much injury done to the salmon fisheries in any rivers which you are acquainted with, by the refuse from mills and chemical works going into them ?

There are few chemical works in the district in which I live.

1692. Or bleaching works ?

There are not bleaching works of any magnitude in my neighbourhood. I know one thing which has done much injury to the salmon, and particularly

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to salmon fishers ; that is the refuse from sawmills. The sawdust from them is allowed to flow out of the mill race ; it goes over the river, spoiling the river banks for miles below. I never knew a salmon to take a fly when this sawdust was floating down the river.

1693. Duke of *Richmond*.] Has not there been a sawmill recently erected above Mr. Gilmour's shooting ?

Yes, a very injurious one.

1694. Lord *Polwarth*.] Could throwing that sawdust into the river be avoided easily ?

A very trifling expense would avoid it.

1695. What is the fishing that belongs to the Town Council at Elgin ?

We have no fishings particularly belonging to the Town Council ; it is merely liberty to the public to angle for trout.

1696. They do not catch a great many salmon there, do they ?

Very few indeed.

1697. Are you aware at all what the deleterious matters used in the bleaching, that destroy the fish, are composed of ?

No ; there is a combination of chemical preparations used in bleaching, which put together I always heard were detrimental to the existence of salmon.

1698. Would it be very expensive to enact that that refuse should not be permitted to go into the river, but should go elsewhere ?

A very little expense.

1699. Lord *Stanley* of Alderley.] Is not the law as it at present exists on the subject distinct, although the mode of enforcing it may be difficult ?

There is a law prohibiting it to a certain extent ; I am not aware at this moment whether it applies to gas works.

1700. Duke of *Richmond*.] Is it not very difficult to prove what the owner of the mill uses, and if you cannot prove that it is a deleterious substance, the sheriff will not convict ?

He would not.

1701. He must have direct evidence of what is used ?

Yes.

1702. *Chairman*.] Is the supply of fish derived from sea fishing larger and more regular than that derived from the rivers ?

It is more regular, and the quality of the fish, I think, is finer.

1703. Therefore you think it is important to the public that there should be a supply of fish taken in the sea fishing ?

In a public point of view, I think it of considerable importance.

1704. Lord *Polwarth*.] Or near the mouth of the river ?

Of course it is not desirable to come near the mouth of the river in catching them.

1705. Earl *Ducie*.] I thought you said there was no perceptible difference between a fish caught in the sea and a fish caught after being a few days in the river ?

That is quite true, for a matter of eight days.

1706. Why are those taken in the sea superior to those taken in the river ?

They are much the same if they are taken within the eight days.

1707. Lord *Polwarth*.] Is not the fish rather better than when it is taken within four or eight days ?

I should say not.

1708. Does not it carry better to a distance ?

I am not able to judge of that ; when I wish a prime salmon, I like to get one from the stake net.

1709. Lord *Lovat*.] Are not there stake nets at the mouth of the Lossie ?

Yes.

1710. How

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1710. How near?

It is a bag net now used; it used to be a stake net; it is quite close to the mouth of the river.

1711. Are many fish caught in it?

A good many.

1712. *Earl Cawdor.*] Are you acquainted with the Ness and Beauly?

I am.

1713. Do you know the definition of the estuary that was proposed in that Bill?

Yes, I do.

1714. Do you think that that included much that was not properly estuary?

A very large extent, I think.

1715. Will you state to what extent?

It includes many miles of what I look upon as an arm of the sea.

1716. *Lord Polwarth.*] What do you call an estuary?

There are different ideas occurring on what is really estuary.

1717. *Lord Stanley of Alderley.*] What, in your opinion, would constitute what you might fairly call the estuary of the Ness and Beauly?

All below low-water mark at neap tides.

1718. What would you consider the limits of the estuary of the Ness and Beauly?

There is a prolongation of estuaries on that coast, if I might use that expression.

1719. In defining the estuary, what would you consider the estuary of those two rivers; how far would it go?

I should say the estuary belonging to the Beauly would come down to Inverness, to Kessack Ferry.

1720. That would come down to the mouth of the Ness, would it not?

Yes; then the estuary belonging to the Ness itself might be considered as going down to Fort George.

1721. You would consider Fort George the extreme eastern limit of the estuary of those two rivers?

I would.

1722. And anything beyond that you would consider could not be fairly held to be the estuary of those two rivers; but is the open sea, or belonging to the estuary of other rivers?

Open sea.

1723. *Earl Innes.*] You said there was a bag net at the mouth of the Lossie. Has the fishing become worse since that bag net was erected?

No.

1724. There has been no falling-off in the take of fish?

I stated before that there are very few salmon go up the River Lossie; there are a few go up in the end of the year, in the autumn rains, and a few spawning fish, but very few. I think that the salmon that are caught at the mouth of the Lossie belong rather to the River Spey; at all events, in a large proportion, because they are hovering about the coast.

1725. *Lord Lovat.*] The Spey salmon, you think, are caught by the bag net at the mouth of the Lossie?

Yes.

1726. *Chairman.*] Do you think the sweep net is used to any injurious extent?

I think it is exercised too severely for the interest of the salmon proprietors.

1727. *Lord Lovat.*] How far off the Spey is that bag net of which you spoke?

It is about six or seven miles.

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1728. Duke

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1728. Duke of *Richmond*.] Do you think that any of the fish that get to the Lossie mouth now, and are caught in the bag net at the entrance of that river, would, if there were no bag net, get into the Spey?

I do, for this reason; that the salmon that are caught at the mouth of the Lossie in the bag nets could not go up the river Lossie if they were not caught at the mouth of the river, because the river is too small for the size of the fish.

1729. Lord *Stanley* of Alderley.] Might not the salmon hang about the river till there was a spaiht or sufficient water to enable them to ascend the Lossie?

They might; but the river Lossie never continues sufficiently large to permit salmon of that size to spawn in it.

1730. Duke of *Richmond*.] Are there no spawning-beds in the river Lossie?

Very few; it is only the smallest description of fish that spawn in it; grilse spawn in it, but I have never seen a large fish spawn in it.

1731. How far is the Lossie from the Spey by sea?

Six or seven miles.

1732. Is it not generally supposed that the salmon come from the north?

I am not aware that they come more from the north than from the south; I think they come in all directions towards the river in which they spawn.

1733. You are of opinion that it is possible that the fish should get six or seven miles beyond the river Spey, and then get back again to the river Spey?

Certainly.

1734. *Chairman*.] You have said that in your opinion cruive dykes are extremely destructive to the breed of salmon?

In so far as they totally prevent the fish getting up the river.

1735. You are of opinion that mill-dams are nearly as much so?

On small rivers they are worse, because there is no Sunday slap in them.

1736. Ought not there to be a slap according to law?

There should be.

1737. Are there no means of enforcing the observance of the law in that respect?

Not at present, that I am aware of.

1738. Lord *Lovat*.] Are there not stake and bag nets between Lossiemouth and Burgh Head along the coast?

No; the coast is not well adapted for stake nets.

1739. Are there none between Lossiemouth and Burgh Head?

There was a bag net used at one time.

1740. Are not there some at Rose Inch?

No, none that I am aware of; I am sure there are no stake nets between Lossiemouth and Burgh Head; but there may be bag nets. There was a bag net at one time, but to the best of my belief not now.

1741. With respect to the salmon which are caught in the bag net, to what river should you suppose they belong?

I suppose they would belong either to the Findhorn or the Spey.

1742. How far is that river off the Findhorn?

About seven or eight miles; if you take the ground midway between Lossiemouth and Burgh Head, the Findhorn and the Spey would be nearly equidistant.

1743. Duke of *Richmond*.] Do you not think that the fixed engines at Lossiemouth do as much mischief to the River Findhorn as they do to the Spey?

I should think they did more harm to the River Spey, because they are nearer to it.

1744. They are beyond it?

They are beyond the river.

1745. Lord

1745. Lord *Lovat*.] Do you know how the tide runs there?
The ebb-tide runs east ; the flow-tide, west.

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1746. *Chairman*.] Should you approve of a provision, permitting the use of the rod for a month after the commencement of the close season ?

I would recommend that particularly, so as to give an interest to the upper heritors to be watchful in the preservation of the salmon.

1747. Lord *Stanley of Alderley*.] Did you ever know of any salmon being taken, except in the immediate neighbourhood of the coast ; did you ever hear of one being taken two or three miles in the sea ?

No.

1748. *Chairman*.] Are you of opinion that the use of the stake and bag nets is essential to the proper fishing of the sea coast ?

I believe so.

1749. Under certain restrictions or not ?

I would have restrictions during the Sunday if possible.

1750. How would you provide for the case of storms, in which they could not get to the stake and bag nets ?

I would provide a certain kind of machinery on land, by which the net could be removed from the bottom of the sea so as to let the salmon pass on.

1751. You think that that would be practicable ?

Unless in some particular cases, I think it might be accomplished.

1752. Duke of *Richmond*.] Would not the fishermen always say that it blew so hard that they could not get out to the stake and bag nets to give the Saturday slap ; and do not you think that this plan might be adopted, to make them remove their bag nets and stake nets a month earlier ; for instance, instead of their giving up fishing on the 27th of August, they should give up on the 27th of July ; would not that be an easier way of doing it, than enforcing the Saturday slap ?

Yes ; but they might complain of being compelled to do that before the proprietors of the river fishing were compelled to give up the sweep nets.

1753. The proprietors of the bag and stake nets get the fishing on Saturday and Sunday ?

They do, but they only get it at half tides generally speaking.

1754. Lord *Stanley of Alderley*.] Do not you think it fair that in exchange for those 30 Sundays, during which they keep the stake and bag nets working, they should leave off fishing a month before the river proprietors, who do observe the Sunday slap ?

That might be a matter of arrangement between the different salmon proprietors themselves.

1755. *Chairman*.] You think, notwithstanding the use of the stake and bag nets, that if the rivers were properly protected, sufficient fish would go up for the purpose of spawning ?

I do ; I think the great thing, if the salmon proprietors could agree among themselves, would be to molest the fish as little as possible after their entering the river.

1756. Lord *Polwarth*.] How would you propose to protect the upper parts of the rivers, the breeding streams ?

There is no way of protecting them that I am aware of, except by strict watching, and that watching, of course, could be carried on by those locally interested if they had sufficient interest to induce them to do so.

1757. How do you propose to give them an interest ?

Sharing the salmon along with the proprietors of the lower fishing.

1758. How do you propose to give them more salmon ?

To let plenty into the river.

1759. Lord *Stanley of Alderley*.] You would be disposed to give an extension
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of rod fishing, which would give the upper proprietors an additional interest in preserving the salmon?

I would.

1760. Lord *Polwarth*.] If they take no interest in the river, do you suppose it will be protected?

It is difficult to protect it, unless those locally connected take an interest in it and have an interest in doing so.

1761. Duke of *Richmond*.] In point of fact, if the upper proprietors desired their factors to tell their tenants that if they or their servants were ever found guilty of poaching, they would be removed from their land, do not you think that would be a very efficient way of protecting the river?

A most efficient way.

1762. Lord *Polwarth*.] Can you, in Scotland, remove tenants for an offence of that nature?

By stipulating that it should be enforced.

1763. Have the landlords generally any control over their tenants?

They can have almost unlimited control by special stipulations in their leases.

1764. Will a tenant take a farm in Scotland for agricultural purposes under such a stipulation for 19 years?

If he gets it at a moderate rent, he will do so.

1765. Lord *Lovat*.] Is stake and bag net fishing more expensive than fishing with the net and coble, or less expensive?

I believe it is more expensive.

1766. In what proportion?

I could not state the proportion; that depends very much upon the locality where the stake and bag nets are placed.

1767. *Chairman*.] It has been stated by some of the witnesses that many salmon, which do not actually enter the bag and stake nets, are deterred from proceeding up the river by coming in contact with those fixed engines; is it your opinion that that is the case?

It is not; for this reason: that in the case of the stake nets, more particularly those which come in contact with them do not get away, and in the second place, the fish have a very large portion of the day during which they can avoid them altogether, as they do not come so near the shore as to touch them at anything like low water.

1768. Earl *Innes*.] At the outer end of the stake net there is always a bag net which is never dry, is not there?

I mean that they do not come into such shallow water as to be caught at low water.

1769. Earl *Polwarth*.] Is it not the habit of the fish to keep in shallow water?

Not very shallow; 10 or 12 feet, perhaps.

1770. Lord *Lovat*.] The bag nets are set in deep water?

They are.

1771. Earl *Ducie*.] Do not you think that those persons who carry on the sea fishings, will so set the nets for the salmon, as to put the bag nets directly in their way?

The bag nets can be put into deeper water than the stake nets, and are more calculated to kill the salmon at low water.

1772. Therefore, those fish that escape the stake nets are met by the bag nets?

If they are in proximity to each other.

1773. Earl *Innes*.] In many cases there are two or three bag nets set out beyond the end of the stake net, are there not?

Yes.

1774. Are

1774. Are not they a direct obstruction to the fish in their passage to the river?

They are.

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1775. Duke of *Richmond*.] You were asked just now, with respect to tenants ; you do not mean that the tenants of farms are generally guilty of anything like poaching, but it is usually the smaller crofters, is it not ?

It is, and labourers ; farmers very seldom interfere with it.

1776. *Chairman*.] What in your opinion should be the legal definition of the mouth of a river ?

Where the fresh water joins the salt at low-water of ebb tides.

1777. Earl *Cawdor*.] How would that apply to the estuary of the Ness. Your definition which you have given us now would not carry it so far as Fort George ?

I do not attach the meaning to "estuary," that the estuary is the river.

1778. *Chairman*.] Have you any further information to give the Committee, or any suggestion to make for the amendment of the law ?

I have. First, I consider it of great importance that all cruives in rivers should be abolished ; giving yearly compensation, if necessary, for loss, until it can be satisfactorily established that their removal has increased, rather than diminished the rentals previously realised by those supposed to be affected by their removal. Second, that in all mill-damdykes on small rivers, a space should be kept open in the middle of the river, and upon the bed of the stream, say not less than 18 inches square, from six o'clock in the evening until six o'clock in the morning on week days, and from six o'clock on Saturday evening until six o'clock on Monday morning. Third, that at the intack, or upper end of every mill race a stake, covered with wire-net sufficiently small to prevent the passage of salmon-fry, should be fixed and locked so as to prevent their passing down the mill race. (I have known thousands of salmon-fry and other trout, taken in a creel or net placed at the lower end of such mill races, during the period when they are in the habit of descending the river, and when, from the complete obstruction which the dam dyke creates, there is no way of getting down, except through the mill race. I have also known numbers of salmon taken in the same way, when they run up a small river in a flood, and finding the river too small on subsiding, fall back and are caught in the mill race, not being able to get over the dam dyke.) Fourth, the Sunday's slap was meant, I believe to be real, not a sham ; if so, a proprietor of a river should not commence fishing with sweep nets on Monday morning beyond three miles distance from the sea ; or beyond six miles on Tuesday, and it is matter for serious consideration whether proprietors beyond six miles from the sea should be allowed to fish with sweep nets at all ; I mean by distance from the sea, six miles from high-water mark. If angling is to form a source of amusement to the many, and of profit to the owners of upper fishings, all should have a fair chance of participating in that pleasure and profit, taking into view their nearness to, or distance from the sea. Unless the interests of all are considered in this respect, then combined influence and active support cannot be secured for the protection of breeding salmon, and if not, all will suffer. It would be as unreasonable to expect that 100 sheep should produce a thousand in one year, as to suppose that half a breeding stock in the river should fulfil the expectations of salmon proprietors and anglers. Fifth, no fixed engines should be allowed within half a mile of a river mouth ; by which, I mean where the fresh water meets the salt at ebb-tides. Upwards of 40 years ago I lived on the banks of the Aven, the principal tributary of the Spey, and the clearest river in Scotland, where the movements of the salmon could be distinctly witnessed during the day, in summer and winter. The salmon ascend that stream easily in June, and remain in the pools during the summer. Those that come up first get brown by the end of August, so as to make a reddish appearance in the clear water of the Aven. They spawn early in October ; when they come up the roe or spawn is very small, but it gradually increases to full size. The salmon that come from the sea later in the season, say in July and August, are not so lively as those which go up earlier (being heavy) ; the female fish in particular

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ticular are so, as their roe or spawn are full grown and larger, so that they become an easy prey to the sweep nets, and if hooked by the angler, are easily brought ashore. During the spawning season, I have witnessed on the Aven a scarcity of female fish; sometimes, one frequenting a spawning-bed for a week without a male fish being near her. If the river became swollen, she either moved off, or male fish came up and joined her; sometimes half a dozen came, and then a regular system of fighting ensued, the largest always beating off the smaller, and when the largest happened to be away, the next largest played a similar part, so that in the end white spots appeared upon their backs, the skin having been torn off by the bites given; any inequality in the number of male and female fish is therefore, I suppose, detrimental to the breeding of salmon. Lastly, I regret to observe a provision in a Bill now before Parliament to preserve bull trout and other trout. I know, from observation, that those trout are the greatest destroyers of salmon-fry; they invariably haunt all spawning-beds, and greedily devour the roe of the female fish, and the salmon are put to incessant trouble in chasing them off; but they are so nimble and quick in their motions, as to escape punishment. Another provision in the Bill referred to is, to prohibit a salmon caught by the rod from being landed in any way except by means of a net. This presupposes an angler and attendant; one would suppose that a sportsman, even in the Inverness waters, might be allowed to land his salmon as suited his fancy.

The Witness is directed to withdraw.

PETER BROWN, Esq. is called in, and examined.

P. Brown, Esq.

1779. *Chairman.*] I BELIEVE you reside at Linkwood, near Elgin?
 Yes.

1780. Are you factor to the Earl of Seafield, and to Mr. Munroy, of Novar?
 Yes.

1781. You have had, in your capacity as a land surveyor, considerable experience with regard to salmon fishing?

Yes, in the early part of my life. I was much employed as a land surveyor, and have made surveys of disputed fishings in rivers and estuaries.

1782. You are now joint lessee, are you not, of salmon fisheries on the sea coast in the Moray Firth, near Findhorn?

Yes; and I have managed Lord Seafield's and Mr. Munroy's estates, upon which there are both river and sea fishings.

1783. Is it your opinion that the sea fishings of which you have any knowledge have decreased of late in value?

No; I think they have not.

1784. Are they as productive as they were?

They are fully as productive as they were.

1785. Have the river fishings not fallen off in value?

They have fallen off, particularly in the upper waters.

1786. To what cause do you attribute that falling off?

I believe the falling off of the river fisheries is due to various causes, poaching in particular; poaching in closetime up to a recent period was very extensive. Then there are a greatly increased quantity of new mills and manufactories on the rivers, with dam dykes constructed upon a very perfect principle, so that when the river is small almost no water can get past them; the whole of the waters of the river go past the mill wheels. Then, upon other rivers we have, besides the dam dykes, works in which different kinds of chemical preparations are used, and a great deal of refuse discharging itself from those works into the river, which hurt the fish very much. I would especially instance the Dee and the Don. I look upon them as almost lost as salmon rivers, gone entirely, chiefly from

from those causes. On the Dee there are none of those works, but at the mouth of that river is the harbour of Aberdeen (with its wet and dry docks), where there is a great quantity of shipping, and where the whole sewerage of the city of Aberdeen is discharged, circumstances which are quite against a salmon river. I admit that the stake nets and bag nets have tended to decrease the number of salmon in the rivers during the fishing season, but not during the close time, because they are not used in the close time.

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1787. Do you think, in spite of the existence of stake nets and bag nets, that a sufficient quantity of fish go up the river for the purpose of keeping up the breed?

I do; but I would propose an extension of the close time. I think we should stop fishing earlier, both in the sea and in the rivers. We fish too late.

1788. When do you propose that the fishing season should close?

I think the close time should commence from the 15th to the 20th of August.

1789. *Earl Imes.*] Has not there been a great increase in the number of stake and bag nets upon the coast?

There has; I recollect when there were none. There are now a great many.

1790. Do not you think that that ~~increase~~ of stake and bag nets operated materially to the destruction of the breed of salmon?

I do not think they have any connexion with the breed of salmon. If the stake and bag nets are taken out at the proper close time, and the breeding fish protected, it is impossible that the sea fishings can have any effect upon the rivers.

1791. How comes it that there has been a decline in the take of salmon in Scotland since the establishment of stake and bag nets?

I do not admit that there is a falling-off in the take of salmon. Upon the whole, taking the sea fishings and the river fishings together, there are more salmon killed now than there were 40 years ago.

1792. *Lord Stanley of Alderley.*] Where do you think the salmon are going that are taken in the stake nets?

I admit freely that they are going to the rivers for no other purpose than breeding, and in the early part of the season for clearing themselves of sea lice.

1793. So that every salmon that is intercepted by the stake and bag nets is on its way to some river, either for the purpose of spawning or getting rid of the sea lice. If those stake and bag nets did not exist, the salmon would get into the rivers, would they not?

I think it is probable they would.

1794. *Duke of Richmond.*] But many of them would be caught in the rivers, would not they?

Many of them would be caught in the rivers. Perhaps nearly as many would be caught in the rivers as are now caught in the sea and the rivers both; I admit that the rivers are injured by the stake nets in the sea when the fish are taken on the sea shore, but I maintain, in a national point of view that is an advantage; we have a larger supply of fish and of a better quality from having the sea and the river fishings together.

1795. *Lord Stanley of Alderley.*] Do you consider that the salmon seek to ascend the rivers as much in the later part of the season, during the present close time as they do in the early part of the season, when they are caught in the stake and bag nets, proceeding towards the rivers?

I think more so. The nearer the spawning time the more anxious the fish are to ascend the rivers.

1796. *Chairman.*] What is the principal spawning time in the rivers with which you are acquainted?

The principal spawning months are November and December.

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1797. Do you know how long the salmon usually remain in the rivers before they spawn?

I cannot speak to that; I am not versed in the natural history of the fish.

1798. Lord *Polwarth.*] Have you seen the spawning beds?

Yes, great numbers of them; I once saw the most extraordinary thing on the Fiddich, a tributary of the Spey; I saw more than 60 fish in one stream, and the Duke of Richmond's bailiffs watching them, and very properly too.

1799. Were they on the spawning bed, or in the pool?

They were on the spawning bed; on a gravel bed of a tributary of the river, not in the river itself.

1800. At what time of the year do the fish commence spawning?

I do not think they settle down upon the spawning beds before the middle or end of October?

1801. Duke of *Richmond.*] Is not there a great deal of poaching up the Spey?

I do not think there has been so much since your Grace employed proper police as there was before; I do not think there were more than two cases came before the magistrates this last year.

1802. Do you know if there is any what is called "cross-line" fishing in the Spey?

Yes.

1803. Do not you think that cross-line fishing ought to be prohibited?

I think that it is very unsportsmanlike fishing, although I have seen sportsmen doing it. It ought to be put down.

1804. *Chairman.*] Is the quality of the salmon taken in the sea superior to the quality of the salmon taken in the rivers?

Decidedly, except at the very mouths of the rivers. If they are two days in the rivers, they are very different fish to what they are taken in the sea.

1805. Do you think it important to the public that there should be a supply of sea-caught salmon?

I have no hesitation in saying so; I am fully of that opinion.

1806. Earl *Ducie.*] Could you detect a salmon which had been two days in a river?

I could very readily.

1807. Lord *Stanley of Alderley.*] Do you think that the stake nets and the bag nets are more expensive than the old mode of fishing by the net and coble?

Not if you take into consideration the number of fish killed; they kill the fish cheaper, in proportion.

1808. You think the stake and bag nets kill a larger number than would be taken by the net and coble under the same circumstances?

Yes.

1809. Lord *Polwarth.*] Can you afford to take that increased quantity out of the rivers, bearing in mind the necessity of leaving a sufficient number for breeding?

I do not know as to that, I am sure. I recollect the time when the salmon were mostly caught in the rivers. There were very few caught in the sea in my early days. But the effect that it had was that great hauls were taken at a time. I have heard of 800 and 1,000 salmon being taken at one haul in the fishings on the Spey and at other times a great scarcity.

1810. Lord *Stanley of Alderley.*] Do you think that it would be possible to observe a Sunday slap in the stake nets and bag nets?

I think it would be very difficult to manage it on an exposed coast; but I think with the stake nets it could be done with certainty, whatever kind of weather

weather it was. The bag nets would require to be taken ashore altogether, and that would be a very difficult thing to do in very bad weather.

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1811. If it is considered essential, with regard to the breed of salmon, to observe the Sunday slap in cruives and mill dykes, would it not seem to be fair that the same rule should apply to stake nets and bag nets in the sea?

I think it would be rather unjust to the stake nets, because the stake nets only fish 12 hours out of the 24; they only fish, in fact, three days in the week. The head of the stake net does not go below low-water mark; it only fishes at half-flood and half-ebb. The nets upon the shore do not catch them at low water; it is always at half-flood and half-ebb that they are caught.

1812. Is it your opinion that the salmon are generally following the coast rather at high water than at low water?

I think they are.

1813. Then, if so, the observation which you have just made, that the proprietors of stake nets have only half the time for fishing that the people in the rivers have, would not exactly apply, inasmuch as the time when they are prevented from fishing is the time when the salmon are not following the coast?

When the nets are placed in deep water it is the same thing; the bag nets are always in the deep water.

1814. Then with regard to the bag nets your observation would not apply, because they are always fishing?

No.

1815. With regard to the bag nets, would it not seem fair that the same law, with regard to the Sunday slap, should apply to them as to cruives?

My answer to that question is this, if it were practicable I would have no objection; I think it ought to be so; but there should be a saving clause in the case, that the owner should not be liable to pains and penalties in very bad weather, when he might be prevented from removing them.

1816. It has been suggested by a witness who has been examined before this Committee, that it would be fair, seeing that the owners of bag nets have the opportunity of catching salmon during 30 Sundays more than the river fishers, that they should be prevented from catching any fish a month earlier than the river fishers are prevented from doing so; do you think that it would be fair to apply an earlier close time to the bag nets?

I think it would be hard; perhaps they would lose the best prices; and, besides, they are oftentimes unfishable by storms.

1817. On the other hand, they have an advantage over the river fishers, because they have, in point of fact, a month longer for fishing than the river fishers by 30 Sundays additional?

They may have more hours of fishing, barring storms.

1818. Lord *Polwarth*.] What sort of a police would you have to enforce the Saturday slap in bag and stake nets?

It would be an expensive police, I should think, because those nets are spread over a great part of the coast of Scotland, and in remote places, where they would require to be looked after.

1819. It would require a police to look at each net individually?

It would; at least each individual net would require to be frequently examined.

1820. *Chairman*.] Is it your opinion, taking the whole quantity of salmon caught in the sea-coast fishings, as well as in the rivers, that as great a quantity is brought to market now as was the case formerly?

My opinion is that there is more.

1821. Upon what do you found that opinion?

(135. 5.)

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P. Brown, Esq.

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My reason is this, that there is a vast deal more extended market; the population is very much increased, and the wealth of the country is very much increased. Not only are the markets in the large towns in England and Scotland as well supplied, but the people at home, where they are caught, eat a great many more salmon than they used to do, and yet the price has not risen, nor have I heard of any continued scarcity of fish in the market.

1822. Lord *Polwarth*.] Your opinion is that the salmon have increased, and kept pace with the demand, instead of having decreased?

Yes.

1823. You think that there is a greater amount of salmon produced in the Scotch rivers now than there was 30 years ago?

I think so.

1824. Earl *Ducie*.] Have not a great number of fresh sources of supply been brought into operation of late years?

There is more salmon brought from Ireland, and a few from Holland, but not a great deal.

1825. *Chairman*.] You are now speaking of the London market; you do not mean to say that a greater quantity of fish is brought from Holland, but from Scotland?

When I mentioned those markets, I am speaking of the markets over the whole kingdom.

1826. Lord *Polwarth*.] Are you speaking upon any data that you have collected, or merely from vague imagination?

From my own observation, and from my knowledge of the prices. I know what the prices were 40, 30, and 20 years ago, and now.

1827. Lord *Stanley of Alderley*.] Were not the prices then much lower?

They were not lower; the wholesale prices were greater.

1828. Do you mean that the prices in Aberdeen, Perth, London, and so on, were greater?

There are some intimate friends of mine who were tacksmen of fishings belonging to the Duke of Richmond upon the Spey, and I have heard them say that they were selling salmon at half-a-crown a pound in London, and I never saw an instance in the last seven years when it was sold for 2 s.; this must have been 25 years ago.

1829. You do not mean to say that half-a-crown a pound was the average price in London for the year, but the price realised by the very early fish?

Certainly not the average for the year, but the price for fish caught about the month of June.

1830. Earl *Ducie*.] Can you mention any river in Scotland, in which there has been a very great increase in the take of salmon of late years?

No, I do not know one.

1831. Do you know of any river in which the take has decreased considerably?

I do; every one almost has decreased in quantity.

1832. Earl *Cawdor*.] Do you suppose the additional quantity to be caught in the sea fishings?

Yes, I think that more than compensates for what has been lost in the river fishings.

1833. *Chairman*.] You do not think it would be possible to take the same quantity, or anything like the same quantity, by means of the net and coble, as is now taken by fixed engines?

It is quite impossible to fish the sea shores by net and coble. You could not fish a fifth of it with the net and coble to pay at all; it is only in a very favoured spot that you could fish the sea coast with the net and coble to make it pay.

1834. Earl

1834. Earl *Innes*.] Is it not the case that many places which are now fished with stake nets, were formerly fished by net and coble?

P. Brown, Esq.

Yes.

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1835. Lord *Stanley* of Alderley.] I think you stated in the former part of your evidence that you attributed the diminution of salmon in the rivers a good deal to the increase of mill dykes?

Yes.

1836. Is it not contrary to the law to establish a mill dyke so as to prevent the salmon getting up the river?

I do not know. I would suggest, if it were possible, that there should be regulated sluices put under the mill dykes so as to let the fish up. I know many rivers where, for half a mile down, till the water returns again to its natural channel from the mills, they are perfectly dry.

1837. Do you think it would be desirable to have some summary mode of proceeding, to compel people who erect mills to leave an opening for the salmon to ascend the rivers?

Yes; I know several little rivers that would be capital breeding rivers if these mill dykes were regulated; the fish cannot go to the spawning beds, at present.

1838. Lord *Polwarth*.] I think you have stated that you are acquainted with several sea coast fisheries?

Yes.

1839. Can you tell me under what tenures those sea coast fisheries are held; are they held by charters granting fisheries?

There are different tenures; some have royal grants with the right to fish for salmon.

1840. Do those charters define the distance along the coast to which the grantees are entitled to fish?

The fishings are attached to certain lands and certain baronies.

1841. Earl *Ducie*.] You have had long experience in salmon fisheries?

I have known them ever since I have been in business, which is nearly 50 years.

1842. How long have you been connected with stake nets as a tenant?

Seven years.

1843. Lord *Stanley* of Alderley.] Do you admit that stake nets are illegal in rivers?

By the law of Scotland they are illegal in estuaries and rivers; it does not signify how wide the river may be, if it is found to be an estuary.

1844. How do you define an estuary?

It is a difficult matter; scientific men may arrive at a decision, but I cannot.

1845. In point of fact, does not the estuary vary with the circumstances of each particular river?

I think it ought to terminate where the fresh water meets the salt water at ebb-tide, that should be the rule; it is most difficult to determine, when it is a large estuary.

1846. Duke of *Richmond*.] Does not that depend a good deal upon which way the wind blows?

Yes.

1847. Earl *Ducie*.] Do not you think the obstruction which stake nets offer to the passage of the fish is injurious to them?

I do not think the touch of a stake net frightens the fish much; it may change their course and drive them out to sea a bit, but they come back and find their way to where they were going.

1848. *Chairman*.] You believe that the insufficient quantity of breeding fish, which is complained of in some rivers, is attributable rather to obstructions
(135. 5.)

P. Browne, Esq. that are met with in the rivers themselves, than to the stake and bag nets on the coast?

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I do. I know several rivers, where there are large beds of rocks, which the fish must have great difficulty in ascending. I think a great deal of good could be done in improving the beds of those rivers so as to let the fish get higher up, by blasting the rocks.

1849. Lord *Stanley* of Alderley.] Have you had any experience of ladders for the purpose of enabling salmon to get up rivers in places where obstacles exist?

A friend of my brother's, a Mr. Cooper, came to visit me about two years ago; he had done that very extensively in the north of Ireland; he got an Act passed, giving him the right of fishing in a river and its tributaries. At the entrance of the river into the estuary there was a drop or fall of some 24 or 25 feet, which, by means of a ladder which he constructed, enabled the fish to ascend; and which succeeded admirably; the rivers in which there never were salmon before are now fast stocking up.

1850. Do you think that that principle might be applied in the case of mill dykes?

Yes; and it might be applied in the case of the Beaully, for instance, and many other rivers.

1851. *Chairman*.] Are not all fishings subject to great fluctuations with respect to the quantity of fish taken?

Yes, all salmon fishings are; and white fishings too. We have had a great scarcity in the white fishings for the last 10 months; they have come on now again.

1852. Those fluctuations are caused by circumstances of which we have no knowledge?

We know nothing about it.

1853. Owing to the introduction of these stake and bag nets, you think the supply of salmon is much more regular than it was formerly?

It is.

1854. And the fish, generally speaking, are of superior quality?

The fish, generally speaking, are of superior quality.

1855. Earl *Ducie*.] Does not the practice of keeping the fish in ice prevent the market being glutted; is it not possible to store the fish?

No, not to keep them good for any length of time.

1856. Lord *Stanley* of Alderley.] Are the Committee to understand that it is your decided opinion that the quantity of salmon, including the salmon taken in the sea and the salmon taken in the rivers, has not decreased or diminished of late years?

It is my decided opinion that the quantity has not decreased.

1857. Is it also your decided opinion that the price of salmon has not increased within the last forty years?

It is my decided opinion.

1858. *Chairman*.] Besides the quantity of salmon sent to London, is not there a great quantity sent to Edinburgh, Glasgow, and Liverpool?

Our company do not send many to Glasgow and Edinburgh, but we send a great many to Liverpool.

1859. Are not a good many salmon put in cases, hermetically closed, and sold for exportation?

A good many are consumed in that way; that is a new mode of disposing of them.

1860. Earl *Ducie*.] I suppose those are not the best fish that are put in the tin cases?

I never looked into that question; I know two years ago we sent our grilse to a man in Aberdeen, who is in that trade.

1861. Lord

1861. Lord *Stanley* of Alderley.] Do you ever catch foul fish in a stake net? *P. Browne, Esq.*

I never saw one caught in the stake nets.

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1862. Lord *Polwarth*.] Do not you catch fish that are advanced in spawn? I cannot say that; I do not attend to the practical department myself.

1863. In the autumn months, are not there fish taken in the stake nets with roe in them?

No; we never fish after the 20th of August.

1864. A spawned fish, or kelt, returning to the sea, you have never seen taken?

No, not in the stake nets.

1865. Lord *Lowat*.] Are not the fish very much injured in the bag nets by storms?

Yes; I have seen them injured.

1866. To any great extent?

No, not to a great extent; I never saw more than four or five injured in a storm.

1867. Is the cost of the bag net, or stake net fishing, greater than that of fishing by net and coble?

Not in proportion to the number of fish that it kills; we should kill very few in our fishings with net and coble, almost none.

1868. Earl *Cawdor*.] Is not fishing by net and coble an expensive way of fishing, owing to the number of people employed?

Yes; and there are a great many people employed in the stake and bag net fishings too, the very best men.

1869. *Chairman*.] Is it your opinion that the lower portions of some of the rivers with which you are connected are a good deal overfished?

Yes, I think they are hard fished.

1870. Principally, by means of the sweep net?

Principally, by means of the sweep net.

1871. Would you restrict the use of the sweep net?

Where it is used now there are always two cobbles and two nets at one place; when one is drawn the other is shot; that is rather a new thing, I think; it was not usual in my early days.

1872. Do you think the meshes of the sweep nets are smaller than they ought to be?

No, I do not think it.

1873. Are the meshes of the sweep net smaller than those of the stake and bag nets?

Yes, they are smaller than the stake and bag nets.

1874. Are you able to say what the size of the mesh of the stake and bag net is?

Four inches or four inches and a half, when it is stretched, from knot to knot, I think.

1875. Are the sweep nets sometimes used in connexion with the cruives?

They are used immediately below the cruives in the river.

1876. Lord *Polwarth*.] The cruives stop the fish to a certain degree, and then you take them out of the pool below the cruive with the sweep net?

I think so.

1877. Earl *Ducie*.] Do you think there should be some restriction upon the present use of sweep nets?

I think they go rather a long sweep across the river, and rather too rapidly one after another.

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1878. Can you suggest any restrictions with respect to the use of stake and bag nets?

No, except to give them the Saturday slap, there is no restriction that I see; they would be of no use in any other way than as they are.

1879. *Chairman.*] Do you believe the Saturday slap is pretty well observed by the lessees of cruives?

I think it is generally; I am not particularly acquainted with it; I remember going once to look at the cruives upon the Spey; they were not right at that time, they were at that time in the hands of a tacksman.

1880. Duke of *Richmond.*] How many years ago, is that?

I think it was in the year 1812.

1881. *Chairman.*] Would you say, generally speaking, that the cruives are fairly used?

I have had no great practice in cruives, but I think that they are a hard mode of fishing, and there is nothing so much calculated to impede the passage of the fish up the rivers.

1882. Is it your opinion that the abolition of the use of stake and bag nets would be inconsistent with the rights of the proprietors or their lessees?

Where they have good titles, I do not think it would be fair.

1883. You think where a right of fishing has been granted, that the grantee has a right to fish in the mode which he thinks most advantageous to himself?

I think he has as good a right to improve his mode of fishing in the sea, or in the river, as a man has to improve his mode of cultivating his land.

1884. Viscount *Hutchinson.*] What would you say if the right to use fixed engines of any kind were abolished everywhere, both in the sea and in the rivers; that is, stake and bag nets in the sea, and cruives in rivers?

The consequence would be that you would have no supply of fish; you would not have, perhaps, one-fifth part of the fish that you have now.

1885. Are not there many places on the coast which at present are fished by stake and bag nets, which could also be fished by the net and coble?

There are some places where there is a sandy shore that could be fished by the net and coble, but I do not think it would much more than pay expenses.

1886. Is not the fishing with the net and coble less expensive than fishing by stake and bag nets?

Not in proportion to the quantity of fish that is caught. I dare say you might use a net and coble at less expense than you could put in a stake and bag net.

1887. I think you said that you were a lessee of stake and bag nets?

Yes.

1888. Do you contribute anything towards the preservation of the spawning fish in the adjoining river?

My landlord does regularly, in proportion to the rental.

1889. Do you mean your landlord to whom you pay the rent for your stake and bag net fisheries in the sea?

Yes, in the open sea.

1890. And also in the river?

We have none in the river.

1891. Lord *Polwarth.*] You have stated that you think that there is no decrease in the quantity of salmon produced in Scotland?

There is no decrease, in my opinion.

1892. You do not think it necessary, therefore, to take any further steps towards

towards improving the breeding of salmon in the upper waters of the rivers? *P. Browne, Esq.*

I would suggest; if it is found necessary, that all fixed machinery in rivers and estuaries should be abolished.

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1893. But not on the sea coast?

Not on the open sea coast. And I would suggest that the close time should be altered as I have said.

1894. Why would you suggest that, if there are as many salmon caught now as there were 40 or 50 years ago?

More to keep peace than anything else. We have so much talk about it.

1895. Viscount *Hutchinson*.] You are not of opinion that the continuance of the stake and bag nets in the sea will eventually cause the complete destruction of the fisheries?

Certainly not; so long as the rivers are protected and taken care of.

1896. You have stated, I think, that your landlord is in the habit of contributing towards the preservation of the fish in the river. Can you state whether it is generally the custom of the owners or the lessees of those stake and bag net fishings in the sea, to contribute towards the preservation of the breeding salmon in the nearest river?

I cannot speak to that. Within, I should think, five or six miles upon either side of the rivers, the owners of sea fisheries do pay for the protection of the fish in the rivers.

1897. Lord *Polwarth*.] You mean on the sea coast?

Yes. I mean the fisheries having an interest in the sea fishings.

1898. Viscount *Hutchinson*.] Do not you think it is a matter of justice that the owners of those sea fishings, if they are allowed to continue at all, should be compelled to contribute towards the cost of the preservation of the spawning fish in the adjoining rivers?

I think they should. I think it would be perfectly fair that they should pay in proportion to their rental, and that rental can now be very easily ascertained, because the rivers have been valued under the Lands Valuation Act.

1899. Should not that contribution be in the proportion that the quantity of fish taken bears to the total fishery of the river?

I should say that that would be complicated; I would take it at the money rent, as it stands in the valuation roll of the county.

1900. Lord *Polwarth*.] If the fish are not taken in the breeding rivers, do you think that the proprietors there should be obliged to contribute, and also be exposed to the inconvenience of your bailiffs coming upon their ground, for the purpose of protecting the fish in the rivers?

I think they should; I think the supply of fish is so much a national concern, that every one on the river should be bound to protect it as far as possible.

1901. You would expose a person who has no interest in a river, and to whom you give no interest, to all the inconveniences of protecting the fish.

I mean all those who have an interest in the rivers only.

1902. You tell me that the fish are taken upon the coast, and not in the rivers?

There is a part taken in the rivers. I do not mean to say that they are all taken on the coast.

1903. Lord *Lovat*.] You have stated that the fish caught on the coast all belong to some river?

I think, as a rule, they are inclined to go to the rivers to spawn; their instinct leads them to do so. That is all I pretend to know about the natural history of the salmon.

1904. *Chairman*.] Is much injury done to the river fishings by dam dykes, carried partly or wholly across the rivers?

I think a great deal.

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1905. Lord *Polwarth.*] Can you get rid of these dykes without interfering with other interests.

I think there might be some enactment compelling the parties either to make ladders or sluices, which would be the same thing. For instance, they might be compelled to open their sluices a certain time in week days, and the whole of Sundays.

1906. *Chairman.*] Do you think that the slap could be made in these mill dams without injury to the mill?

I think it might be contrived. It is a pity that such a law as I have indicated should not be enacted and enforced; I am sure it should be.

1907. Lord *Lovat.*] Have not some stake nets been removed lately at the Findhorn?

Yes; they were found by the verdict of a jury to be at or near the mouth of the river, at a point unprotected by Statute.

1908. How far from the river at low water?

I suppose it was half a mile from the end of the sand bed at the river mouth to where the net stood.

1909. *Chairman.*] Is it your opinion that all fixed engines should be prohibited in rivers and estuaries, and permitted on the sea coast?

Yes.

1910. Are you of opinion that it would be expedient to establish a Board or commission, with power to assess the proprietors, and make various regulations for the management of the fisheries in the different rivers?

I think there are some circumstances that call for that. I think it would be unfair to fix the close time on all rivers alike.

1911. You think that would be one power that might advantageously be given to such a Board?

Yes.

1912. Do you think that the Fishery Board, as now existing in Scotland, would be an effective body for that purpose?

I think it might; it is a very respectable Board. The same Board might also fix where the estuary would end, or where it would begin.

1913. Duke of *Richmond.*] There would be no difficulty in assessing the fisheries in Scotland, because the rental could be taken from the valuations for the county?

Yes; it is just as simple as the poor's rate, or simpler.

1914. *Chairman.*] You think it would be impossible to fish the sea coast otherwise than by means of stake and bag nets?

The sea-coast fishings would be comparatively worthless as fishings in any other way.

1915. You think that the public have an interest in the maintenance of stake and bag nets on the sea coast?

Decidedly so; the public have just now a full supply of fish at a moderate price, but they would not have it if the stake and bag nets were abolished.

1916. Have you any further information to give to the Committee, or any other suggestion to offer?

I beg leave to mention that the body of men who are employed as stake and bag net fishers are a very strong, hardy, race of men; they are young picked men, because the work requires strong, powerful men; and these men are well versed in seafaring matters; they are capital rowers, and the stake and bag net fisheries make an excellent nursery for the navy, because there is a large body of men employed.

1917. It is your opinion that the stake and bag net fisheries would be a valuable nursery for hardy seamen?

Yes; either for the mercantile or Her Majesty's navy.

1918. I think

1918. I think I understood you to say, that one of the advantages of the stake and bag net fisheries was, that no foul, or spent fish are taken in them ? *P. Browne, Esq.*
I never saw any. 13th June 1860.

1919. Earl *Ducie.*] Is it not the fact that frequently in rough and stormy weather, when the men are unable to go out to the bag nets, many fish are spoilt ?

It is not very frequent, except in a stormy time ; fish are lost sometimes, but not frequently.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned to to-morrow,
at Two o'clock.

Die Jovis, 14^o Junii 1860.

LORDS PRESENT:

Duke of RICHMOND.
LORD STEWARD.
Earl CAWDOR.
Earl DUCIE.
Viscount HUTCHINSON.

Lord COLVILLE of Culross.
Lord POLWARTH.
Lord LOVAT.
Lord STANLEY of Alderley.

LORD STEWARD in the Chair.

CAPTAIN MAITLAND DOUGALL, R. N., is called in, and examined, as follows:

Evidence on the
Salmon Fisheries
(Scotland).

1920. *Chairman.*] YOU are proprietor of salmon fishings in the Tay?
I am.

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1921. Will you describe to the Committee the extent of those fishings, specifying whether they are in the river, in the estuary, or on the coast immediately adjoining the Tay?

I have about six miles of fishing in the estuary on the south shore of the Tay below Dundee, and I have about one mile of coast fishing immediately outside the Tay.

1922. What nets or engines do you use for the purpose of fishing?

On the coast I use stake nets and bag nets, and in the estuary stell nets or sight nets.

1923. Are you of opinion that either the stake nets or bag nets, or stell nets, are more detrimental to the breed of salmon than the sweep nets?

I am of a contrary opinion, and for this reason: that the stake net is stationary; it always has the mesh open; and the sweep net, particularly in the shallow parts, where the net being slack falls together, brings out, where they are trodden upon, an immense number of smoults, or young salmon.

1924. Did you never hear of smoults, or young salmon, being taken in the stake or bag nets, or in stell nets?

I personally have often looked into a stake net, and I have never seen one, and I inquired on that point from my head fisherman, before I came south, who told me that he had never in his life seen a smolt or a young salmon of any kind in a stake net, except grilse, which was intended to be caught.

1925. Duke of *Richmond.*] When do the smoults come down the river to go to the sea?

I believe the smoults to be the fish spawned in November, December, and January, which are the principal spawning months, when from two to three months in the egg, they are hatched; then in the course of some weeks they begin to move to the sea; but smoults are never seen, at least I never heard of their being seen, in the neighbourhood of the stake nets; they do not come to the shore; they swim in the deep channel.

1926. Therefore the reason you do not catch smoults in the stake nets, or in the bag nets, is, that the smoults are supposed to go direct to the sea at once, and do not coast at all?

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They do not coast at all ; therefore we do not catch any ; but I believe that the mesh of the stake net being always spread, that smoults will not remain in the stake nets. Occasionally, in the end of the summer, when the water is full of weeds floating about, the lower part of the stake net is weeded up, so as to confine the small fish ; sometimes young herrings and small flounders are found in the net, but I never heard of smoults.

1927. The fish go to sea, and your bag nets are set towards the river to catch the fish that are coming into the river ?

I fish with my bag nets two hours with the ebb tide, and two hours with the flood.

1928. Lord Colville of Culross.] Are you aware of any smoults being caught in the sweep nets ?

I am aware of a great many being destroyed.

1929. On the coast, or in the river ?

Not on the coast ; sweep nets would not be used on the coast, but in the shallow parts of the river.

1930. Chairman.] Nor the net and coble ?

Nor the net and coble.

1931. Is not the net used with the coble, commonly called the net and coble, a different kind from the sweep net ?

There are two kinds of net ; one is the sweep net, and the other is the stell net.

1932. Earl Ducie.] The stell net is more a stationary net, is not it ?

The stell net is a smaller net than the sweep net, and generally shorter, the difference being that the salmon are not moving about in such quantities where the stell net is used ; it is found useless continually sweeping with no fish. There is a boat outside which holds the outer end of the stell net ; when a fish is seen by the man who is watching near the net, he calls out "Haul," and the net is drawn, and the fish is drawn ashore in the stell net ; the outer end being held is the difference.

1933. Lord Colville of Culross.] The question I asked was with regard to the possibility of the stake nets being abolished on the coast, and the sweep nets being introduced. Do you consider that many smoults would be caught in those sweep nets, if they were introduced upon the coast in lieu of stake nets ?

None, because there are no smoults there ; they do not come to that part of the shore where those nets would be used.

1934. You said that the net and coble destroyed a good many smoults ; you mean in the rivers going down, not on the coast ?

Yes, not on the coast.

1935. Chairman.] What is the average length of time during which the stake and bag nets are in operation in the 24 hours ?

Most of the stake nets generally fish one tide ; that reduces it to 12 hours ; then there are perhaps an hour or an hour and a half at low water, when the net is dry ; then again, at the very high water, the tide is so much above the net, that it is not in operation at that time. I should estimate a stake net to fish about 16 hours in the 24.

1936. Lord Lovat.] Are not bag nets placed out beyond the stake nets ?

I believe in some parts they are placed beyond the stake nets.

1937. They fish at all times of the tide ?

They do if they are left in the sea at all times of the tide ; some are set with the flood and others with the ebb. My bag nets are only set two hours in the ebb and two hours in the flood.

1938. They are taken up afterwards ?

They are taken up entirely out of the water, and put into the boat, and the boat left at anchor, and the fishermen return home, leaving the bag net in the boat. When they go down again, it is set about two hours before low water, and they fish till about two hours after the flood is made.

1939. What

1939. What number of men do you require to work those bag nets?

I have about 42 fishermen, I think, at present; it takes, perhaps, about three men to set a net; after it is set, one man is enough to watch it; the other men go and set other nets, and do other work, such as knocking the weeds off the stake nets that may be near, and one man is generally left to watch that net.

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M. Dougall, R. N.
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1940. How many men does it require to attend to a stake net?

The stake net, after it is once set, only requires two men to weed it, and take the fish out.

1941. *Chairman.*] How are your bag nets placed with relation to the stake nets; are they placed outside?

They are quite independent of the stake nets; they are not, as I understand, in some parts, set to catch any fish that escape from the stake net.

1942. Do you believe that a net in motion is more likely to alarm and drive away the fish than a stationary net?

I think that any one who understands the natural habits of fish must be of that opinion; anything in motion alarms an animal, especially a fish, more than anything which is stationary. I lately asked my head fisherman, who has been a fisherman all his life, probably upwards of 40 years, if he thought salmon were alarmed by the stake nets, or other nets; he told me he had often seen a fish swimming up to the net come close up to it, and try to get its nose through, swim along that net without any appearance of fear, and he was in his boat at the outer end of the net, if he moved his head, that fish darted off, apparently not being afraid of the net, but very much afraid of anything that moved.

1943. Do you believe that salmon, when ascending the river, generally keep in deep water?

I do believe so, not only because I have read the evidence of the late Dr. Fleming, who understood more of the habits of salmon than any man Scotland has produced for some years, and I agree with him, from what little study of their habits I have myself personally made, and for this reason: I have already stated that I have about six miles inside the estuary, and one mile outside. Occasionally we are fishing heavily, as the fishermen would say, at all the stations, all the nets above and below are catching great numbers; presently a spaight, as they call it, or a flood comes; the fish find the river in a fit state for running, and disappear from all the nets simultaneously. Those upper nets, seven miles above, do not continue to catch the fish longer than the lower nets, if those fish, on making up their minds to go to the fresh water, swim up the coast; those upper nets certainly would continue to fish some hours longer than the lower ones; but they appear to go at once into the deep water, and the next thing we hear is that there are heavy takes-up at Perth, some 25 miles up the river.

1944. Does the quantity of salmon taken at your fishings fluctuate considerably?

I believe there are periodical fluctuations in the quantity of salmon from natural causes, just as there may be in corn or fruits, or any other produce. Perhaps you will allow me to refer to a table of the takes in the Tay.

1945. Where does that table come from?

It is published by the Board who manage the fishings in the Tay.

1946. And it may be called an official document?

Yes; this is the table by which we are assessed; it is got up by the person who manages the fishings in the Tay, at Perth, and it is quite official. I believe there are many natural causes which tend to affect the quantity of salmon taken; but whether that may be classed by natural causes, such as the severity of the weather, or by change in the quantity of food, I cannot say.

1947. You do not believe that there has been any permanent falling off in the quantity of salmon taken in that neighbourhood?

On the contrary, in the Tay, according to our rentals, the take of salmon has been improving for several years. If I may be allowed to refer to the table, we find that in the year 1828 the produce of the whole of the fishings in the Tay and neighbourhood amounted to 14,574 *l.*; it gradually fell off for some years,

(135. *c.*)

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and there is a continuous falling of until the year 1852, when we find it as low as 7,973 l.

1948. Viscount *Hutchinson*.] What was the price of salmon in 1828, and what was the price of salmon in 1852; you have stated the quantity in money; therefore, in order to make a fair comparison, it will be necessary to know what the relative prices were in the different years?

I cannot state positively the relative prices in those years; but, as far as I remember, the prices of salmon since 1850 have not materially altered. I think the prices of salmon go on, with small fluctuations, from 1850 to 1859 without any material alteration; they go up and down a little, but very little indeed. In 1852 the rental is down to 7,973 l.; from that it begins to rise, and we find next 8,700 l., 9,000 l., 9,900 l., 10,000 l., 10,700 l., and 11,400 l. in 1858; and this last year I was informed by the person who drew up this table, who is placed in charge of the salmon fisheries in the Tay, that the rental has again risen up to very nearly 14,000 l., without any change in the nets, having the stake nets, as they are at present, outside the river. The only change that we have had is having altered the close time to the 26th of August from the 14th of September, and I believe that has had a very good effect. I will, with your Lordships' permission, hand in the table, showing the rental of the Tay and its tributaries from 1828 to 1858 inclusive. (*The Witness delivers in the same.*)

Vide Appendix.

1949. Earl *Ducie*.] When did that alteration of the close time commence?

In the year 1857. The rental had commenced to rise, allow me to observe, before 1857, for it began to improve in the year 1852, and it continued rising, but the rise has been greater since the alteration in the close time.

1950. Have you some private association for preserving the Tay?
We have.

1951. When did that first come into operation?

It was in operation before I had anything to do with salmon.

1952. At what date?

I am not quite sure.

1953. *Chairman*.] How long have you been connected with salmon fisheries in the Tay?

I have had a personal interest in them since the year 1850.

1954. Had you any knowledge of them before that year?

Except as a rod fisher, very little.

1955. Earl *Ducie*.] Can you give us an approximate date of the institution of that association?

I cannot.

1956. Is it 20 or 30 years old?

I am afraid to say, because I do not know, and I never heard. In this association we have taken means to improve our rentals. We agreed to alter the close time to the 26th of August; we pay for protection, and we have very little poaching in the Tay. We pay for artificial propagation in the Tay, and with some small changes, which I hope to lay before your Lordships presently, (I should like to prevent the destruction of the fry and the eggs at the spawning beds) we are in a very happy state in the Tay. Our rental is improving at the rate lately of 2,000 l. a year.

1957. *Chairman*.] Does a good understanding prevail between the proprietors of fishings on the coast and proprietors of fishings in the river?

I think it does. About the year 1857, Sir John Richardson, who was the principal mover in this alteration of the close time, asked me if I would second him in proposing this alteration, as perhaps the proprietor who had the largest interest in the lower river fishings. After considering the subject, I agreed to do so, because I believed it would be for the benefit of all having an interest in the salmon fishings in the Tay; part of that Bill, which I proposed at the meeting at Perth, provides that the period for closing the rod fishing should be changed to the 1st of October. We lengthened the rod fishing by, I think, nearly a month. I did that as fair play to the rod fishers. There was no opposition to that Bill; and I think that there is a good feeling in the Tay.

Tay. I have heard, in other rivers, that one proprietor does all the damage he can because another man will not do something which he wants, and they fight against each other, and damage their rivers. I believe if there were the same good understanding as we have in the Tay, in some rivers in the north, in the Tweed, and elsewhere, they might improve in like manner.

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1958. Lord *Colville* of Culross.] Do not the Duke of Atholl and Mr. Butter of Askerley, the proprietors of the upper part of the Tay, and tributaries of the Tay, concur in this association, and assist it?

I do not think they pay; the table I have put in embraces all who pay: these are the rentals, I think, of every person who pays to that association; they may contribute privately.

1959. You are very much at the mercy of those gentlemen whom I have mentioned for your stock of fish, and for the preservation of the fish in the spawning grounds during the close season, the Duke of Atholl principally; does he coincide with you in the alteration of the close time?

Certainly; he was very strongly for it.

1960. Lord *Lovat*.] Is the Marquess of Breadalbane one of the association?

The Marquess of Breadalbane stands second; he has a rental of 50 l.

1961. Earl *Cawdor*.] When you altered the close time in the River Tay, did the stake-net fishers alter the close time also?

They did.

1962. Viscount *Hutchinson*.] Are there not certain limits defining the estuary of the Tay, within which limits stake and bag-net fishing is entirely prohibited?

There are.

1963. Will you state what those limits are?

The stake nets are not allowed within Broon Ness Point, in Forfarshire, and Tansmuir Point, in Fife.

1964. Are you aware whether a similar rule prevails in any other Scotch river; take the Ness and Beauly, for instance?

I am not personally acquainted with the position of the Ness and Beauly.

1965. But supposing that stake and bag nets were used in the whole of the estuary of the Tay, in that part of it in which they are now prohibited, what effect do you think that would have upon the breed of salmon in the river?

Perhaps the Committee would allow me to quote some evidence that was received in the House of Commons in 1824 on the subject of stake nets relating to the estuary of the Tay: "At the Earl of Mansfield's fishings (he is one of the upper proprietors of the net fishing in the Tay), for 10 years preceding the introduction of stake nets into the estuary, he caught 10,000 salmon and 1,600 grilse," (I am reading it in round numbers); "for 10 years after the stake nets were permitted in the estuary, he caught 11,000 salmon and 3,300 grilse, the increase being 1,370 salmon and 1,634 grilse. Then, again, in the town of Perth fisheries, during the same 10 years, previous to 1798, they caught 31,000 salmon, and 6,000 grilse. For the 10 years subsequent to the introduction of stake nets, they caught 32,000 salmon, and 10,000 grilse, being an increase of 941 salmon, and 4,448 grilse. Then, again, at Sir David Moncreiffe's," (now Sir Thomas Moncreiffe's): "I believe in the three years preceding the stake nets, he caught 6,356 salmon, and in the three years immediately after the introduction of stake nets, he had 7,398 salmon, being an increase of 1,042 salmon. Then, again, in the Forth, during the year 1804, in consequence of the interdict which had been granted, but which was re-called in the immediately ensuing year, there was not a stake net in the Firth; the produce of this year to the upper heritors appears to have been 11,732 fish. In the following year, 1805, stake nets were restored, and in active operation, and the produce of the upper fisheries, of the coble nets, irrespective of stake nets, was no less than 25,327 fish." I am not prepared to say that that was in consequence of the stake nets; but surely it cannot be proved that stake nets had done them any injury. From what I understand, those who are opposed to stake nets, have picked out certain years which fit in

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with what they wish to show. I can pick out certain years which would fit any doctrine I choose to advocate. I have picked this out, not because I believe it is in consequence of stake nets that there has been an increase, but to show that stake nets certainly cannot be held to have done any injury, when there was a large increase in the fishing during the existence of stake nets.

1966. Would you advocate the re-introduction of stake nets in that part of the estuary of the Tay in which they are now prohibited?

I would, on conditions; I think the way to fish in Scotland properly, is to take care of the breeding fish, close early, and put down those nets which destroy the fry; put down those nets which smash the eggs; improve your machinery during the fishing season, but close early, and do not begin too soon. Catch the fish by all means in your power, as long as that does not destroy future generations of salmon. I believe that bag nets in the estuaries would produce an immense quantity more salmon for public food, and in catching them by that means, you would do no harm to the young fish. The effect of putting down bag nets and stake nets on the coast, I take it, would be to put into the hands of the Dutch and Norwegians the salmon fishings of Scotland. The effect would be that the salmon would come to market from the fresh water not in such a good state; the market would not be so well supplied, and prices would rise. I would improve my machinery, and catch the fish in any way that was not found injurious. I would certainly not permit stake nets to go out beyond low-water mark. It must be understood that stake nets fish only on the beach, whereas the sweep nets go right across the river. Those nets that stretch down to low-water mark, I believe, catch the fish much cheaper, and save all the wages of the men. By a little ingenuity they have a bag which the fish gets into at low water, and then they go and take that fish out; that is only set on the beach, and there are miles for the fish to run. When the salmon swims for the fresh water, it is said to be from one of three causes, to spawn, to get rid of the sea lice, or because they are sickly; and we have it on the evidence of fishermen that they invariably swim in the mid-channel.

1967. You think that salmon may be driven into the rivers by sea lice and otherwise, besides for the purpose of spawning?

That is stated to be the case by a number of people who have been examined previously—I do not mean on this occasion—as to the habits of salmon.

1968. Is that your own opinion?

It is the old opinion; but I personally do not think so.

1969. Duke of *Richmond*.] Do I understand you rightly, you are of opinion that the close time should be made a month or two earlier than it is now; that every care should be taken to protect the rivers; and that during the fishing season, you think that the proprietors ought to be allowed to catch salmon in any way that they think fit?

As long as they do not block up the channel of the rivers. I conceive that it is very unfair to put large nets across the rivers, so that no fish can pass up. I think you should be allowed to catch them in any reasonable way, such as bag nets on the beach.

1970. Or stell nets?

Stell nets, certainly.

1971. Viscount *Hutchinson*.] If those fixed engines, stake and bag nets, were re-introduced into the estuary of the Tay, do you apprehend that they would have the effect, in a certain number of years, of seriously diminishing the total quantity of fish in the river?

I do not think so, if proper care is taken of the breeding fish. We may calculate that the number of eggs of each individual salmon is in round numbers about 20,000.

1972. Has it ever been estimated how many of the ova which a full salmon contains come to maturity?

Even

Even allowing about a quarter of the quantity, a few fish would amply stock the rivers, if you took care, at the end of the season, of the breeding fish.

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1973. The fish breed in the upper waters of the rivers. How would it be the interest of the proprietors of the upper waters to protect those breeding fish, if the whole of the lower part of the rivers is full of engines of destruction which prevent the fish coming up to them, except so late in the season that they have become unfit for food?

I believe still that a very large proportion of fish would pass all those nets on the beach. Some people say that salmon invariably miss their rivers; they come to the coast on either side of their rivers, and coast along in a certain route till they find the mouth of their rivers, that stake nets are set in the way of those fish, and that there are immense quantities caught and driven off by those stake nets. Now I think that one glance at the rentals quite disproves that. If such were the case, we men outside the rivers would be getting the 12,000 *l.* a year, and those gentlemen up the narrow part of the river would be getting a few hundreds a year from those fish that return; therefore I think that the great bulk of the fish, in swimming for the fresh water, would not come to the beach, but still go up the river.

1974. *Chairman.*] Up the channel of the river?

Yes, in the deep water.

1975. Lord *Colville* of Culross.] You say that there has been a considerable increase of salmon upon the coast of late years; do you not understand that there are great complaints among the upper heritors and rod fishers, of a falling off in proportion to the increase of which you have spoken?

May I be allowed to quote figures from this table which I have put in, which will show that it is the sweep nets in the throat of the river which I conceive to be the evil, if there is one, in the Tay at present. The rental of Hay, of Mugdrum, in the year 1828, was 180 *l.* In the year 1858, his rental was 753 *l.*; and this last year I heard from the tenant, who has the fishings, that the rental is 1,100 *l.*, having risen from 180 *l.* The Earl of Wemyss's fishings, in 1828, were 485 *l.*; in 1858, 2,228 *l.*; this year, I think, it is up, I cannot say how much, because the table ends in 1858, but I have reason to believe it is up again. I was told so. Then, again, the rental of Mrs. Hay, of Seggieden, in 1828, was 180 *l.* That rental has risen to 515 *l.*; and various others. The lower proprietors of sweep nets have the most scourging way of fishing. Their nets are very long, and sweep completely across the river; and before one net is drawn they have another net spread behind it; it has all the evils of the stake net (and evades the law) without its being a stake net. Then, again, there is a system of fishing they have lately invented in the Tay, about which there is a litigation going on, called the Bermondsey boat fishing. I do not quite understand it, therefore I shall not attempt to describe it. It is found to be a very scourging mode of fishing. Then we find that the proprietors, a little above those gentlemen who have improved their working, so as to raise their rentals in this way, have fallen off. We find that the Earl of Kinnoull's rental has fallen. In 1828, it was 910 *l.*; in 1858, it is 89 *l.* The Earl of Mansfield's rental, in 1828, was 525 *l.*; in 1858, it was 180 *l.* Sir David Moncreiffe, now Sir Thomas Moncreiffe, in 1828, had a rental from his fishings of 1,000 *l.*; in 1858, it is 316 *l.* Therefore it would appear that those fallings off in the upper net fisheries, and in the rod fisheries, are the consequence not of any change in the stake nets, or from the existence of the stake nets, but arise from the scourging mode of fishing in the throat of the river immediately below them. Those are the damaging nets which kill the smoults and draw them out. I was told by a man, the other day, that he had seen as many as 100 smoults drawn out in one shot in the river. They were kicking about the gravel, and seeing a stranger come up, the men began to shovel them in with their feet.

1976. Lord *Colville* of Culross.] Then you attribute the falling off in the rod fishing, and the complaints in that respect, to the mode of fishing which you have been describing?

Yes, at the throat of the river, where they are getting the 12,000 *l.* a year, and not the 300 *l.* a year that the stake nets on the coast get.

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1977. *Chairman.*]

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1977. *Chairman.*] Are there causes other than the mode of fishing, which in your opinion, tend to prevent an increase in the breed of salmon?

There are; I think that mills, bleaching works, dye works, and many other of those sort of manufactories, destroy the salmon in the small tributaries which run those into the river. I think, also, that the artificial manures which are used on the land; lime, for instance, is known to kill fish, and guano must make the water very distasteful to them. I also believe that draining has had a very injurious effect, for this reason, that a river is after rains more easily flooded, the water is made too red and too strong for salmon to run. The river is a shorter time in a fit state for salmon to run up it, and it sooner becomes too dry for the fish to run over the fords; therefore, now-a-days, we have rivers a shorter time in a runable state, if I may use the expression, for the fish to get up.

1978. Would it be possible for the Sunday slap to be observed in the stake and bag net fishings?

Perfectly; it could very easily be done. My own bag nets, as I have informed you, are taken out every tide; therefore, nothing could be easier than not to set them on the Sunday. My bag nets are never set on the Sunday. There would be nothing easier than to pull a part of the net open in the stake net; it would merely entail the necessity of one man going down on the Sunday morning, or on the Saturday night, just to pull open a door to let the fish escape through the stake net.

1979. You are speaking of your own fishings; do you believe that has been generally the case with the bag nets on the coast?

I believe it might very generally be done. No doubt there are places where bag nets exist, and, where the set of the sea is heavy, there might be a difficulty there on certain occasions in making them unfishable.

1980. But those cases you think would be exceptional?

Yes, quite exceptional.

1981. Lord Colville of Culross.] It has been stated in evidence that a great number of fish are destroyed in the stake nets, when they cannot be approached in bad weather; have you heard of such cases?

I never heard of its being the case. Any injury to fish caught in bad weather in the stake net fishings is merely by rubbing the scales off, they do not bring so good a price in the market, but they are not injured, and are quite as good for food.

1982. Have you ever heard of injury being done to salmon in bag nets by storms?

I never heard of it. In some places where bag nets are set in deep water in the sea, the fish may possibly be injured if the net is in the water all the time; occasionally the fish may be crushed, but I never heard of such a case.

1983. Do not seals attack the salmon in the nets.

Yes; they hover about them in great quantities. There are hundreds of seals lying on the banks at the mouth of the Tay, and there are great shoals of porpoises, but not so many as there used to be 30 or 40 years ago.

1984. Earl Ducie.] Supposing that the Sunday slap were established for stake and bag nets, I think I understood you to say that you would open a slap in both?

I would allow the bag net to float at the top of the water.

1985. When it was open?

No; the bag net would be wholly inoperative. The bag net is supported at the upper part by floats, and the lower part is fixed down by anchors; all that you would have to do would be to slip the rope which holds the lower part, and the net would come to the top of the water, so that there would be nothing to intercept the fish.

1986. Supposing that were not done, would it be easy to detect it?

Very easy; I think in bag nets there is a pole which is upright in the water when the bag net is set, and if you slip the rope which makes the lower part of it fast to the anchor, that pole would fall flat on the water, and its not being done could be detected immediately.

1987. Duke

1987. *Duke of Richmond.*] Seals are supposed to do a great deal of mischief to salmon; are you of that opinion?

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I agree with the evidence of Mr. Johnstone and Mr. Halliday, and others, who gave evidence in the House of Commons in 1824, that they do, and if your Lordships will allow me I will read part of their evidence. This is from Mr. Johnstone's evidence, "I should consider there was a great deal more salmon destroyed in the Tay in the course of a season by grampuses, porpoises, and seals, than is caught by man; I should think double the number. I should think that each porpoise, grampus, and seal would destroy, on an average, two salmon per day. In all places where there are salmon I have seen grampuses and seals; they are destructive of salmon to the same degree almost wherever salmon exist." Then Mr. Halliday says, "An immense number of salmon are destroyed by grampuses, porpoises, or seals, far more than all the fisheries of Great Britain destroy. I have often thought that the porpoises and seals in the Tay destroy four or five times more salmon than all the fishers in the Tay." Then this question is put, "To the best of your ability, how many porpoises have you ever seen, at any time? I think, three or four hundred. Some porpoises will destroy six or eight salmon in a day; some of them would destroy a great deal more than that, but others of a smaller kind would not destroy so many. I think, on an average, they may destroy at least four fish a day.—Does it consist with your knowledge that there are grampuses and seals in other friths and rivers, and on the sea coast generally, where there are salmon? I never knew a good salmon fishing which was not attended by the one or the other, and sometimes by both. I have seen as much salmon in the stomach of a porpoise as a man could lift. I was told by a fisherman in the Solway, that he once knew six salmon taken out of the stomach of a grampus, part was much injured, and part in a good state, and they sent some of them to Carlisle market." There is a great deal of evidence to the same effect.

1988. *Chairman.*] You have spoken of the evils produced by sweep-net fishing; can you suggest any remedy for them?

The way they fish, as I have already mentioned, is by sweeping the net across the whole channel of the river, from one side to the other, while we only fish on the beach. Now, I do conceive that there should be a perpetual slap left in mid-channel for the fish to swim. Let there be a small proportion of the river never fished; it may come hard upon some who now have the cream of the thing, but when stake net fishings are undermined by attacks upon the rights of fishing, I must, in fair play, hit them. What I should advocate would be, that no net should exceed in length half the breadth of the river where it is used; that these nets should be placed at certain distances from each other, so that one net cannot be spread to take the place of another net which has just been drawn; that every net should be inspected before it is put down on its fishing station, and numbered, that net not to be used at a narrower part of the river, but always put in its own place, and the nets to be at certain distances from each other. If the net is half the breadth of the river in extent, with the little curve that would be put on it, there might be a small part of the river in mid-channel never fished. I think while we fish on the shore, the river fishers should be confined to their own side of the river.

1989. *Viscount Hutchinson.*] Then you would entirely prohibit cruive dykes?

I understand very little about cruives; but I should think that might be met by longer slaps in the cruives.

1990. *Chairman.*] Is it the fact that, on the Tay, the coast fisheries yield only 300 *l.* a year, whereas the sweep net fisheries yield 12,000 *l.*?

If you pick out the sea coast fishers, as far as I know them, I can name them. I have, I think, between 300 *l.* and 400 *l.* a year; perhaps half my fish are caught on the outside. The worth of my stake nets (I have two stake nets) may be about 50 *l.* a year. Sir Coutts Lindsay comes next, and his nets may produce (he has bag nets) 200 *l.* a year altogether. The St. Andrew stake nets have been let for many years at 25 *l.* a year. Lord Panmure has from all kinds of nets 117 *l.* a year. There are some others to the northward, but to a very small extent. If you take the produce of the whole of the stake nets, I do not think it will reach 300 *l.*

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1991. Lord *Stanley* of Alderley.] Do you consider that the stake nets, as far as St. Andrew, belong to the River Tay ?

I conceive that the whole coast belongs to the Tay, till it comes half way to the next river.

1992. What would you assign as the limits upon the coast which you think would properly belong to the Tay, north and south of the mouth of the Tay ; name the extreme point to the south and the extreme point to the north ?

I should say to the south as far as Fifeness, and to Arbroath to the north.

1993. Duke of *Richmond*.] You stated just now that you would prohibit anybody from fishing in the centre of a river ; do you mean that you would not allow any man to fish in the centre of a river with the net and coble ?

I think his net should be so altered as not to exceed half the breadth of the river.

1994. Do you mean that he is not to fish in the main channel of the river ?

No ; I think there should be a certain part of the centre of the river left unfished.

1995. Have you ever seen any of the riotous Scotch rivers ?

Yes.

1996. Do not they change their course at every spaight ?

Yes.

1997. How would you define where a man was to fish with net and coble ; would you have an officer there once a day ?

I think the net should be inspected and marked for that ground by the authorities who protect the river from poaching and other things.

1998. How long would that mark remain in any river like the Spey ?

I would put a stake in the shore immediately opposite.

1999. In a great many parts of these highland rivers, would it not be impossible to fish with the net and coble at all if you were not allowed to fish in the middle of the channel ?

There are certain pools that might escape.

2000. I am not speaking of a sluggish river, like the Tay, but of the northern rivers, where the water comes pretty fast, do you think that the pools are not changing constantly, and that the fishing grounds are not changing at every spaight ?

I believe they are.

2001. Would it not be very difficult to define by an arbitrary rule beforehand where the men were to fish ?

The fish would have more chance of escaping.

2002. Your object is to take away the fish from the lower proprietor, not for the purpose of benefiting the public by supplying the market, but to put a profit into the pocket of the proprietor just above him ; if you prevent the lower heritor from catching the fish as you say, for the purpose of allowing the fish to escape to be caught by his neighbour, is that fair ?

I perfectly agree with your Grace in opinion, that it is unfair to do that ; I think it is unfair to prevent the lower heritors from catching the fish.

2003. If I understand you rightly, you said just now that you thought you were bound to state that, because there were a certain number of proprietors who wanted to get rid of stake nets altogether ; but that you think is unjust ?

I merely wish there were some check upon that which is the most scourging mode of fishing just now, namely, the sweep net ; and the idea which has occurred to my own mind, is to shorten the length of their nets, so that they cannot take in the whole width of the river.

2004. You do not object to the net and coble ?

I do not object to the net and coble, but I object to one net being fixed to replace another.

2005. You object to what practically is a cruive dyke, or worse than a cruive dyke, because it catches all the fish ?

I object

I object to that which is worse than a stake net, because it blocks up the river, and in hauling the fish ashore, they destroy hundreds of smoults, and tear up the spawning ground.

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2006. Earl *Cawdor*.] Your opinion is that some regulation should be applied to that mode of fishing?

I think so, for the reason that it does the most harm to the salmon fisheries.

2007. Earl *Ducie*.] Even if the net were shortened, could not the fishermen, by hauling it across the channel up which the salmon travel, render the net just as great a barrier to the passage of the fish up the river as a long net drawn across the river?

I think not; I think one-half of the river would be left for the fish to get a chance on the opposite side.

2008. Supposing the net were reduced one-half in length, there are many rivers up which the channel is extremely narrow, and by laying a shortened net across the channel you would have just as great a barrier, or very nearly, to the fish going up, as if you had a net stretching from one side of the river to the other?

No doubt there are often deep parts where the fish could run on one side that would not be affected, but there are numerous parts where the depth of water runs pretty even, particularly in the Tay, where, for the purposes of navigation, it was dredged out, where the fish would have a much better chance of getting up the river, because the whole of the channel would not be blocked up; I quite understand your Lordship's question; there may be some parts where the river is too shallow for the fish to run, and it would be blocked by a half-net, but still to a great extent it would remedy the evil.

2009. *Chairman*.] Is the quality of the fish taken in your coast fishings superior to the quality of the fish taken higher up the river?

I believe it to be so; I think they bring a rather higher price in the market; it is a received opinion, and is ascertained to be the fact, that the longer a fish dwells in fresh water the more it deteriorates; it becomes soft and gets a muddy flavour; the fish from the sea is in the best state for food and commands a higher price.

2010. You think that the public have an interest in this mode of taking fish on the coast because they obtain a more regular supply of better fish?

I do think that the public have a great interest in the continuance of catching fish in the salt water, particularly at the end of the season after July, when nearly all the fish that run for the fresh water are full of spawn.

2011. Is the supply of fish taken in the sea fishings more regular than that taken in the river fishings?

It is; we fish very regularly, and late in the season we take fish in a better state than they do up the river.

2012. Lord *Stanley of Alderley*.] What is the nearest stake net to the river Tay itself?

The nearest stake net to the river Tay is my own.

2013. Where is it?

It is outside the extreme point on the Fife coast.

2014. Beyond Broughty Ferry?

It is probably about four miles below Broughty Ferry, round the point.

2015. Do you consider that the fish that are caught in your stake net are in any degree superior to the fish that are caught between Broughty Ferry and the town of Perth?

I think we have a witness, who will appear before your Lordships, who has fishings both in the neighbourhood of Perth and opposite my own, at Broughty Ferry; he told me, and I have no doubt will inform your Lordships, that he gets a higher price from the fishmongers in London and Edinburgh for the sea fish than he gets for the fish caught up the river.

2016. How far does the tide flow; does not it flow up to Perth?

Yes.

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2017. What is the distance between Broughty Ferry and Perth?
I should think between 24 and 25 miles.

2018. Do you think there is any distinction between fish caught in that portion of the river up to Perth where the tide flows, and the fish caught in your fishings below the ferry. I am not speaking of salmon caught above Perth Bridge?

I personally have tasted fish caught in the neighbourhood of Perth and in my own sea fishings, and I can at once detect an earthiness in the flavour of those fish caught up at the throat of the river, which my own fish have not. I believe my own fish to be harder and more curdy than the fish caught in the fresh water.

2019. You would not call it fresh water at Dundee, nor would you call it fresh water very near to Perth, I presume?

No; the Tay fishings inside the estuary, after my own fishings, from the present state of the nets, where they are not allowed to use the bag and stake nets, run up to a mere trifle; my own, I have already stated at between 300 l. and 400 l.; then, above me, comes Mr. Berry, of Tayfield, who failed to let his fishings; Mr. Stewart, of St. Fort, who gets 11 l. a year; then there is another property let at about 3 l., and then Mr. Wedderburn, of Birk Hill, who has about 40 l. a year, and so it goes on; these fishings are almost worthless, and hardly pay for fishing.

2020. Are these fishings in the estuary of the Tay?
Yes.

2021. Nearer Perth?
Nearer Perth than my own, but still in the salt water.

2022. Earl Cawdor.] Are they above or below Dundee?

Above Dundee; the Tay narrows rather suddenly; it is just at the throat of the river where the rentals have been increasing from 180 l. to 1,100 l., and so on; the rent of Hay of Mugdrum in 1828, I have already stated, was 180 l., he has risen to 1,100 l. Lord Wemyss' was 485 l., and he has risen to 2,228 l.; and others, by this severe mode of working the sweep nets, have increased their rentals in this immense way, whilst those immediately above them have fallen off not quite so much, but still have fallen; and in the narrower part of the river where, I think, if we have any evil left in the Tay it is there, our rental is increasing, and has been since 1852, very rapidly.

2023. Do you attribute that increase entirely to the use of the sweep nets?

I do think that this scourging mode of using the sweep nets is the greatest evil remaining in the Tay.

2024. Has the quantity of salmon taken in the Tay diminished or increased of late years?

It has increased very much since 1852, from 7,900 l. to 14,000 l.

2025. Is it not a fact, that there are fewer stake nets at the mouth of the Tay than there are at the mouths of any other of the rivers in Scotland; in short, were they not prohibited by an order of the Court of Session within certain limits, which may be fairly considered as the Tay?

There has been no change in the nets during the time of this increase, except shortening the fishing season; we changed the close time from the 14th of September to the 26th of August, and that appears to have had a very good effect; for, although I believe from natural causes the quantity of fish was rising, since that they have begun to increase in a much larger proportion.

2026. Have the sea fishings been increasing or diminishing of late years concurrently with the fishings in the upper part of the Tay?

So far as my memory serves me, in my own fishings, they increased, I think, up to 1856 from 1850; then, since 1856, they have gone down a little; at the time that the whole rental began to increase most rapidly, my own fishings have not been quite so much, but I believe that does not arise from the whole quantity of the fish in the Tay, but from the winds which prevail; the year before last my fishings worked very well indeed up to the beginning

beginning of July, and they kept fishing as well perhaps as any year; after that a long north-west wind prevailed, which did not suit my waters, and I got very few fish at all to the end of the season.

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2027. Can you state with regard to other sea fishings, which are not in your own possession, whether they have increased or diminished?

I think they have increased; I think Sir Coutts Lindsay's have increased very triflingly.

2028. Is not it reasonable to suppose that the mode of using the sweep nets, which you say is so injurious to the fishings, has not, at any rate, injured or diminished the fishings at the sea stations?

I believe it has injured them very seriously, and I believe that our increase is to be attributed to the better protection of the river; we pay for protection, and we have very little poaching in the Tay; we also pay for artificial propagation, and we have changed our close time.

2029. When did you commence artificial propagation?

I think about the year 1853 or 1854.

2030. Do you consider that that has increased the breed of salmon?

To a certain extent it must, because we turn out 200,000 or 300,000 young smoults annually. Whether we can say it has actually returned us our money again, I do not know; but it has enabled us to make some very valuable experiments in the habits of salmon as to whether they return to their own rivers.

2031. Earl Cawdor.] Do you mark the smoults?

We mark a proportion.

2032. Do many return to the Tay?

Many have returned, and many are caught in other rivers.

2033. Lord Polwarth.] Under whose charge is the artificial propagation carried on?

Mr. Buist's; I subscribed to its support.

2034. Do you superintend it at all?

I take no part in the management beyond going to inspect the ponds.

2035. Earl Cawdor.] Have those fish bred by you been caught in rivers very distant from the Tay, or in adjoining rivers?

In adjoining rivers; I never heard of their being caught at a distance; I understand that a great many Tay-marked fish have been caught this spring in the Forth and in the Esk.

2036. Lord Stanley of Alderley.] Have not a great many fish been marked by the Duke of Athol at different times?

Yes.

2037. Do you know whether those fish have been found in any other river?

I never heard of it.

2038. Are many found returning again to the Tay?

The Duke of Athol marked his fish in a way which affected the health of the fish. He put a wire round them, and made a medal fast to their tails; I caught one of those fish, and it was in a very sickly condition; a long, lank, soft fish. It was as much as he could do to keep himself alive; he had a medal fastened to his tail with the name and date on it. That fish evidently had had a difficulty in catching food for himself.

2039. Lord Colville of Culross.] You stated in answer to a former question of mine, that you had never found dead or injured salmon in the stake or bag nets?

Nothing but the scales injured.

2040. A table has been put in evidence with respect to the rack fishings at Aberdeen, showing that in 14 years 7,554 salmon and grilse have been taken out of the stake and bag nets utterly useless. Do you consider that salmon are killed in the nets by seals?

That statement surprises me very much; I never saw or heard of a salmon being so injured as to be in a bad state for food in my bag or stake nets; I have
(185. 6.) c c 2 heard

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heard of their scales being injured so that they do not please the eye so well; and they brought a less price in the market, but even that has happened very rarely; I occasionally get salmon injured by seals and their sides are torn; occasionally seals are hovering round the net and a salmon trying to poke its way out, a seal bites its head off. That salmon will not bring a good price in the market anywhere.

2041. Lord *Stanley* of Alderley.] Have you any bag nets?
 I have.

2042. Do you ever find any injured salmon in the bag nets after a storm?
 Never; because my bag nets are taken up every few hours. My bag nets are taken out and put in a boat; and the fishermen go down with the ebb tide about two hours before low water, and put their bag nets in.

2043. Will not that account for the fact that you have never found any injured fish in your nets, although they may have been found in such places where bag nets are not removed upon an approaching storm?

I do not say that it is not the case; if it has been stated, I have no doubt it is; but I have never found it so.

2044. Earl *Cawdor*.] What is the length of your bag net?
 I should think it is 25 yards long.

2045. Lord *Polwarth*.] Are there any stake nets to the seaward of you, further in the Firth?

There are.

2046. Do they catch fish?
 They do.

2047. In any quantity?
 Sir Coutts Lindsay, whose fishings are next mine, has a rental of about 200 *l.* a year.

2048. Is he seaward of you?
 Hardly seaward. The Tay so directly turns at right angles that we are both equally near the sea, as it were; he is further from the river.

2049. *Chairman*.] Would one effect of the abolition of the stake and bag nets be to throw out of employment a considerable number of persons?

In my own village I have 40 fishermen, and Sir Coutts Lindsay has 10 or 12. It would throw upwards of 50 men out of employment.

2050. Lord *Stanley* of Alderley.] Would it be practicable to work the net and coble on that coast?

It would not; it has lately been tried. A witness who I understand is summoned to appear before your Lordships, bought the Broughty Ferry fishings, which are opposite my own, and he hoped to fish them by the net and coble. (I should say the sweep net, because there are two kinds of net and coble; the stell net is the net and coble.) He hoped to fish them by sweep nets, and he brought down some of his most experienced fishermen to do it, and after trying it for two or three days, he gave it up, not having caught one fish.

2051. What is the character of the coast in general; is it rocky, or a flat, sandy coast?

A flat, sandy coast.

2052. Is not that generally the sort of coast where the net and coble may be usefully employed?

The eddies of the tide bag the net out the wrong way, and it comes in all in a confused mass.

2053. Lord *Colville* of Culross.] Has any damage been done to the Tay fishings by the improvements which have been made in the navigation between Dundee and Perth?

Sir John Richardson, I understood, got 7,000 *l.* damages from the river commissioners, who dredged the river for the improvement of the navigation. Perhaps your Lordships will allow me to refer to a letter which I have received on the subject, which says, "Even Sir John Richardson's fishings, for which he got 7,000 *l.*"

7,000 *l.* from the river commissioners for damaging his fishings, have since that risen from 500 *l.* to about 1,000 *l.*, as high as ever, and 7,000 *l.* into the bargain." I have no doubt that the alterations in the river may have injured some fishings, but they have not injured others.

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2054. Those improvements have altered the fishings, I suppose?
On the whole, in the part that has been dredged, they are making more than they did.

2055. Lord *Lovat.*] May not the clearing out of the channel have removed some obstacles that prevented them from fishing before?

It has made the water deeper, and the fish lodge there. When the river is dry the fish are afraid to run, and they appear to lodge there, where it has been deepened, waiting for the river to rise.

2056. Lord *Polwarth.*] From whom do you hold your fishings?
I have a Crown charter for salmon fishings.

2057. Is that an old charter?
I understand it is an old Crown charter. I do not know the exact date.

2058. Is it a Crown charter of 100 years ago?
I should fancy it is very old. I think the rights have been exercised more than that time, because the fishery was attached to property belonging to Archbishop Sharp, and I have no doubt he was fond of salmon.

2059. In what way were the salmon taken previously to the invention of the stake net upon that fishery?

The stake nets were introduced in my neighbourhood in the year 1797, and have been continued since that time. But those stake nets were inside the estuary, and there was a litigation on the subject in the year 1812, and they were removed within certain points; but the stake nets were continued on the outside, and they have been in operation, I fancy, since 1797.

2060. Was not your charter granted long before the year 1797?
I should fancy long before that.

2061. The year 1797 was the first period at which stake nets were used?
The stake net in its present shape. I have no doubt that ingenuity was exercised in former days to catch salmon with various other nets not so perfect.

2062. You have no knowledge in what way the salmon were taken in that fishery previously to 1797?
I have no knowledge.

2063. You do not suppose that they were taken with sweep nets, or weir shot nets, or hanging stell nets?
Not sweep nets; that would evidently catch none, or but few.

2064. You say that a gentleman tried in that way for three days; do you consider that quite a sufficient trial to be able to say that it would not answer?
I do, if his other nets were catching at the time.

2065. Are you fortunate enough to catch salmon every three days in the year?
During the fishing season.

2066. You never, in your stake nets, failed to have a 'good haul every day in the season, or if there are three blank days you consider that a great misfortune?
I should consider that a great misfortune.

2067. Your fishings are so good, that you invariably take a number of fish every third day?

I should be very unfortunate if I did not catch fish every day, and a great many; I do not mean to say that every stake net has fish every day; there are blank days, but this gentleman who tried these nets, convinced himself that they were of no use, and he gave them up.

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2068. When you fish with the weir shot net, do not you observe whether there are fish upon the coast, and then draw your nets?

I do not understand the term weir shot nets; it is not a term that we use; this gentleman would not have given it up, if he had thought it would have been any use, because his other nets were catching amply.

2069. If the other nets were catching, he could ascertain where to try his weir shot net?

I should think that this person in trying his net would have given it a fair trial, and would have put it in a good position.

2070. Lord Stanley of Alderley.] Are you able to state any facts to justify you in the opinion that the salmon in seeking the fresh water swim in the deep water, and not close to the shore?

I agree, as I think I have already said, with the late Dr. Fleming, who held that opinion, that salmon swimming for fresh water, swim in mid-channel; and my reason for agreeing with him is, that when my fishermen have been fishing as they said heavily, and catching fish at all the nets, my nets six miles up the river and my net one mile outside the river, making a distance of seven miles, if the flood has come, and the fish have found the river in a state for running, they have disappeared from all the nets simultaneously; the upper nets have not continued with fish lingering about them longer than the nets outside. The fish have disappeared into the deep water; then we hear of heavy takes up in the neighbourhood of Perth: those fish have evidently run up mid-channel.

2071. Do you think that the general opinion which would lead one to suppose that salmon in seeking the rivers hug the shore, is not correct?

I do think so, because in our stake nets we find that the middle nets catch as many as the outer nets; the fish would appear to dwell in the sea; I believe the sea is amply stocked with salmon, and I believe they come in shore with one wind, and are blown off with another; they go up with one tide, and they fall back with the next; I believe they come in shore in search of their food, which are young herrings and sand eels; they come in shore, and disappear again into the salt water, when they have no taste for swimming in the fresh water at all.

2072. Did you ever hear of salmon being taken in the open sea by net or in any other mode?

I never did, and there are no nets likely to catch them; there are herring nets and other nets spread to catch other fish, but the herrings swim through the net, and stick in it; it is not likely that a salmon would stick in a herring net.

2073. If the salmon are frequently prevented by wind and weather from seeking the rivers, would it not occur accidentally, or on some occasion or another, that salmon might be caught in the sea?

I do not think so; I think salmon do dwell in great numbers in the sea: some of the Arctic navigators have written, that on breaking the ice, they found the sea swarming with salmon in those latitudes; apparently they had come to the surface to sun themselves, or for some other purpose which we do not understand in our own latitude.

2074. In those cases, they would not be the salmon seeking the rivers, but the salmon having left the rivers going to dwell in the sea?

Fishermen see salmon springing out of the water. In the North Sea and other places, salmon are seen jumping out of the sea. We see porpoises, and we know that they are going after the salmon like a pack of hounds; they follow a shoal of salmon, and hang on them until they have eaten them, and when that shoal is eaten up, they disperse and go about singly, until they fall in with more salmon, and then they hang on them.

2075. Do you believe that these are salmon coming to the rivers, or salmon leaving the rivers and seeking the sea?

I believe they are salmon dwelling in the sea, and remaining there until some instinct or natural purpose forces them to come to the rivers; then, I believe, they swim into the rivers, but I do believe that they hit their rivers with

with much greater certainty than many gentlemen who have embraced the other view would wish your Lordships to believe.

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2076. Do you ever take a kelt or spent salmon in your stake or bag nets ?
Never.

2077. How do you account for your never taking a kelt or spent fish, and always taking fresh fish seeking the rivers ; is it because you have reason to suppose that the fresh fish seeking the rivers hug the shore, whereas the fish after having been in them and spawned, keep in deep water ?

I believe a kelt going down to the sea swims down the channel to the salt water, but I believe that the salmon which we catch in shore are in chase of their food, and are not making for the rivers, because we very often have an arrival of salmon in the river, and none on the coast. I think this year they were getting grilse up about Perth early in May, and when I left Scotland, not quite a week ago, I only heard of one grilse being caught on the sea coast in my neighbourhood. These grilse, which were caught up at Perth, must have swum in the mid-channel, and we did not get them.

2078. Do you think that you catch the salmon in your stake nets, not because they are hugging the shore for the purpose of seeking the rivers, but in search of their food ; why should it not happen that you would occasionally catch salmon leaving the river, which also probably seek the same locality for their food ?

They appear to swim out at once to the deep water, and do not come to the shore ; I cannot tell why.

2079. Lord *Polwarth*.] You have stated that you believe the porpoises live chiefly on salmon ; do you make that statement from your own observation ?

Not from my own observation, but from having read the evidence of persons who have opened porpoises, and found nothing but salmon in them.

2080. Have you any conception of how the porpoises live in those seas where salmon do not exist in any quantity ?

I cannot tell. I have heard fishermen say when the porpoises were jumping out of the water, coming in tail foremost, that they were evidently come in search of salmon.

2081. You have stated that the writers on the Arctic Expeditions have stated, that on breaking the ice they have discovered large quantities of salmon ; will you be so good as to give the name of any writer who has touched upon that subject ?

I am not quite sure whether it is Captain M'Clintock or Captain Maclure ; but one of those two, I was told.

2082. You have not referred to the work yourself ?

No ; I was told so since I have been in London.

2083. Earl *Ducie*.] Do you know whether the Arctic salmon are identically the same species of salmon as those which frequent the Scotch coast ?

No.

2084. Lord *Colville* of Culross.] Do you consider that you are entirely dependent upon the rivers for the stock of fish, or do you attach any importance to the new theory of salmon breeding in the sea ?

We occasionally catch fish in the sea that are quite ripe for spawning, so ripe, that if you press your finger upon them, the ova or the melt drops out immediately. I always thought that salmon came to the fresh water to deposit their eggs ; but I know that my fishermen, and a gentleman who rented my fishings for many years, believed that the salmon do not spawn alone in the fresh water, but thought they spawned in the sea.

2085. You never heard of salmon being seen upon what may be called spawning beds upon the sea shore ?

I never did.

2086. Lord *Stanley* of Alderley.] Did you ever hear of anybody catching par or salmon fry in the sea ?

I never did.

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2087. Lord

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2087. Lord *Polwarth.*] Are you aware whether the eggs of the salmon can be propagated in salt water?

No.

2088. You have arrangements for the propagation of salmon in the Tay, I believe?

Yes.

2089. Those arrangements, I apprehend, are in fresh water?

Yes.

2090. So far as you are aware, nobody ever attempted to propagate salmon in salt water?

No.

2091. There has been no encouragement given to attempt the propagation of salmon in salt water?

No, I think not.

2092. You have stated that you caught fish in the stake nets late in the year in higher condition than those which were caught in the river?

Yes.

2093. Might not that arise from the fact, that as they ascend the river, they get more forward in breeding condition, the ova ripening when they get into fresh water?

I believe that is the cause; a great number of fish caught up in the river, are not in such good condition as our sea fish; they are running to spawn in the river.

2094. Your sea fish are preparing to spawn?

They seldom are so far advanced as those caught up the river; occasionally we do find them ripe for spawning.

2095. Do you suppose that they are on their way to the river to spawn, or going back to the sea to spawn?

I always had the idea that they were going back to the river to spawn, until I heard the opinion of a number of experienced persons, who believed they were going to spawn in the sea.

2096. From your own observation, is it your impression, in accordance with what you had heard from those gentlemen, that the fish go back to the sea to spawn?

My own impression is, that the fish spawn in the river. I mentioned the impression and opinion of these other gentlemen, to let your Lordships know that there is an idea amongst those who have long been fishermen, that the salmon do spawn in the sea.

2097. You yourself do not attach much importance to that opinion?

I do not.

2098. *Chairman.*] Have you any further information to give, or suggestions to offer, for the consideration of the Committee?

I do think that there should be a regulation as to the size of the mesh in use.

2099. In all nets?

In all nets. The size of the mesh which is used in some places catches the fish too small. I think that all the salmon fisheries in Scotland require is an early close time, and protection to the breeding fish; if you find such evils in existence which I have pointed out in the throat of the river from this scourging mode of working the nets, I think that requires attention.

2100. When should the fishing season close, and when should it commence, in your opinion?

I think about the 26th of August. I think one general close time would fit the whole of Scotland; doubtless at present different rivers have not the same period for salmon running, but I believe they have been artificially made different. If you, for instance, fish too long, you catch the earliest fish to spawn; you catch what would be the finest grilse, and the earliest to spawn

spawn next year, and thus you create a late river. But I think, where the latitude and the temperature are so nearly the same, that in a few years all would fit into one general close time.

*Captain
M. Dougall, R.N.*

14th June 1860.

2101. When should the fishing season commence?

I would not, on any account, commence before the 1st of February, because I think that about that time, or very soon after, the fry are hatching, and drawing the nets over the spawning beds must crush the eggs.

2102. Lord *Polwarth*.] When you state that drawing the nets injures the spawning beds, do you, in the Tay, use those sweep nets much over the spawning beds?

Not in the Tay so much as in other rivers. They are used in the Tay, but more in the Esk and other rivers.

2103. How near the mouth of the river may those spawning beds be?

I understand, in the Esk, they are a very short distance; in the Tay they are a very long way up.

2104. *Chairman*.] Do you think it is desirable that the period for rod fishing should be extended for any great time after the close of the season for nets?

I do, in fair play to the rod fishing. I think that the period for rod fishing should be extended, and it was with that view that I proposed that it should be extended in the Tay, and it was extended; but I think that salmon should not be allowed to be sold after the net fishing has closed, because it would encourage poaching, and people would sell fish that were said to be caught by the rod that were poached.

The Witness is directed to withdraw.

MR. ANDREW GOW is called in, and examined as follows:

2105. *Chairman*.] I BELIEVE you reside at Lossiemouth?

Mr. Andrew Gow.

Yes.

2106. You were for a great many years a practical salmon fisher?

Forty-five years.

2107. You managed the fisheries of Mr. Robertson?

I did.

2108. You have since been tacksman of the Earl of Fife's fishings?

No. I was tacksman of the fishing belonging to the town of Banff.

2109. You have now ceased to have any connexion with salmon fishing?

Yes.

2110. Therefore you can give the Committee an impartial statement of your opinion upon the subject; will you inform the Committee what is your opinion of the different modes of fishing by stake nets and bag nets, and other fixed engines, and whether you consider them prejudicial to the interests of the salmon fisheries generally?

No, I do not; I think they are a great improvement.

2111. Lord *Stanley of Alderley*.] Why do you consider them a great improvement?

They take the fish in better order.

2112. *Chairman*.] Is the Lossie a good breeding river?

No.

2113. To what do you attribute that circumstance; is it owing to the sewerage and quantity of refuse matter that is discharged into it?

Yes, it is owing to the sewerage a great deal, and the nuisance from the gas-works, and such as that.

2114. Lord *Colville of Culross*.] The Lossie is a very small river, is it not?

Yes.

2115. Very few salmon go up the sea coast?

Yes, I have caught very large salmon upon it.

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2116. Not

Mr. Andrew Gow.

14th June 1860.

2116. Not many go up now ; they are chiefly grilse ?

Chiefly grilse that go up the river Lossie.

2117. Lord *Stanley* of Alderley.] What river, then, do you think the salmon are seeking that you take in your stake nets off Lossiemouth ; if they do not go up the Lossie, do you think they are seeking another river ?

They are just going along the coast between the Findhorn and the Spey in quest of food.

2118. You think that the fish you catch are Findhorn and Spey fish ?

That is very doubtful. It is my opinion that salmon are to be found in the sea during the whole year, that never go up rivers.

2119. *Chairman*.] Did the fisheries of which you were tacksman improve during the time you had the lease of them ?

Double, and more than double.

2120. Have you a statement showing the quantity of increase ?

[The Witness delivers in the following Table :]

STATEMENT by *Mr. Andrew Gow*, of Fish caught by him in *Banff*.

YEAR.	SALMON.	LBS.	GRILSE.	LBS.
1886 - - - -	389	5,068	1,342	6,004
1887 - - - -	743	9,767	4,392	24,450
1888 - - - -	574	8,023	1,402	5,656
1889 - - - -	386	5,037	961	4,522
1840 - - - -	232	2,788	759	3,810
1841 - - - -	514	6,339	2,852	17,117
1842 - - - -	1,076	13,410	3,306	19,247

THE FISH caught in *Tarbet Ness*, during the First and Last Years of *Mr. Gow's* management, were as follows:—

YEAR.	SALMON.	LBS.	GRILSE.	LBS.
1843 - - - -	159	1,885	1,479	7,673
1854 - - - -	685	7,541	3,305	17,773

2121. Earl *Cawdor*.] Were those fish caught in stake nets ?

In bag nets.

2122. Lord *Polwarth*.] Have those bag nets been increased in length of late years ?

No.

2123. *Chairman*.] Did the fisheries belonging to the Earl of Fife improve during the same period under your management ?

Yes, the fishings in the bag nets ; but the river got worse ; the river decreased.

2124. Lord *Stanley* of Alderley.] In proportion as you caught more fish in the sea there were fewer caught in the river ?

Yes.

2125. You think you prevented the fish from getting up the river ; you stopped them on their way ?

Yes.

2126. Do

2126. Do not you think there would be fewer fish to breed if they were not allowed to go up the river? Mr. Andrew Gow.

It was not the breeding season when we killed them ; the bag nets do not kill them in the breeding season. 14th June 1860.

2127. Do not you think the fish that you catch in the stake nets are fish that are proceeding on their way to some river for the purpose of breeding ?

A great many are not ; the Tarbet Ness fishings are not within 12 miles of any river, and the finest fish are killed on the shore, far superior to any river fish that ever I had.

2128. Earl *Cawdor*.] Supposing those fish have escaped stake nets, would not a great many of them be caught in the river, if allowed to go up it?

There is not a doubt of it ; there are a great many seals and such as that upon the banks that destroy more fish, I believe, than all the bag nets.

2129. *Chairman*.] Does not the quantity of salmon taken at all the various fishings fluctuate very much ?

Yes.

2130. Does your experience enable you to say that it has fallen off permanently ?

The river fishing has fallen off gradually, and the bag nets have improved.

2131. Duke of *Richmond*.] Whereabouts are your bag nets that you fish ?

On the Tarbet Ness, betwixt Cromarty and Tain.

2132. I thought you were speaking of the Lossie mouth ; what did you fish the river there with ?

In the river Lossie it was chiefly draught nets.

2133. Where did you put the bag nets ?

About 100 yards from the mouth of the river.

2134. Whom did the stake nets on each side of the river belong to ?

The one belonged to Colonel Brander, and the other to the Duke of Richmond.

2135. How far from those stake nets did you put your bag nets ?

About 400 yards.

2136. Further to sea ?

Further to the westward ; the stake nets are furthest to sea ; the stake nets were double the distance of the bag nets seawards.

2137. This paper you have put in is a statement of the fish caught by you in Banff ; Banff is 40 miles from the Lossie, is it not ?

I was tacksman of the Banff fishings, and tacksman of the Lossie fishings, and of the Tarbet Ness fishings.

2138. Does this return, which states the fish caught by you in Banff, include the fish that you caught at Lossiemouth, and also the fish in Banff ?

No ; I did not keep a regular account of the fish caught at Lossiemouth.

2139. Then this account does not include Lossiemouth at all ?

No ; part of them were boiled and sold.

2140. *Chairman*.] Had you bag or stake nets at Lossiemouth ?

Bag nets.

2141. Lord *Stanley* of Alderley.] You have no paper to show the quantity of fish you have taken at Lossiemouth ?

No.

2142. Duke of *Richmond*.] How many years ago is it since you quitted Banff ?

I went to Banff in 1836. I run a seven years' lease, and left in 1842.

2143. Earl *Ducie*.] Do you think the Saturday slap could be established for the stake and bag net fishings ?

Not without a great injury to the fishings ; it would reduce the value of the fishings nearly one half.

(135. c.)

D D 2

2144. Will

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2144. Will you explain why?

The bag nets and stake nets fish, more owing to the wind than anything else; when it is blowing a middling surf into the water, that is the time that the bag nets fish best. Were we to take out the bag nets on Saturday, we would require nearly double the men to do so; they might take them out on the Saturday, and it might happen that they could not get them in again during eight or ten days; we would lose all the best of our fishings. I consider that it would be more than half.

2145. Lord Stanley of Alderley.] Do you think that it is fair upon the river fishers, that the bag and stake nets should have 30 days more in the year for fishing than they have?

A storm does not prevent the others; there comes a storm and wrecks our nets, and we cannot get fish at all, it may be for 10 or 15 days.

2146. Earl Ducie.] On the other hand, do not spaights very often destroy the cruive dykes, and throw the river fishers out in that way?

I never heard of cruives disturbed during the currency of the fishing season; it is commonly in the winter time.

2147. Duke of Richmond.] You have not much intimate acquaintance with the Spey?

Not much.

2148. Did you never hear of a cruive dyke being away for weeks in the Spey? Not during the fishing season.

2149. Lord Polwarth.] Can they work the sweep nets in the heavy weather? Yes.

2150. In a topping flood?

Yes; there is always some heavy fish take the edge of the water.

2151. Earl Ducie.] Has the price of salmon increased or decreased during your knowledge?

It has decreased.

2152. What is the price now in Banff?

Fifteen-pence, and grilse 6 d.

2153. Duke of Richmond.] Is that wholesale or retail?

Retail.

2154. Lord Polwarth.] What is the price of beef and mutton in Banff?

Eight pence.

2155. Earl Ducie.] Is the local consumption of salmon greater than it used to be?

About three times as much, during my experience of it. I believe there is more consumed in the city of Elgin now than all that I caught during my lease of the Lossie fishings.

2156. Lord Stanley of Alderley.] How do you account for their consuming more; is it that the people are richer?

Fish is cheaper.

2157. Duke of Richmond.] Where do they purchase salmon at Elgin?

Lossiemouth; there are great facilities for getting it in the interior of the country now; you can have them in 15 minutes, from the station to the city of Elgin.

2158. Are any of the fish that are caught in the stake nets at Lossiemouth sold in Elgin?

Yes, they are sold in Lossiemouth; people of Elgin come there and buy them.

2159. Is there any large quantity of fish sold at the stake nets?

Yes, there is a considerable quantity; I consider that there is more than I killed during the currency of my lease.

2160. Earl Ducie.] Do you think the sweep nets in the river particularly injurious to the fish?

Yes,

Yes, they are injurious to the breed of the fish ; the draught net will hurt the fry, by coming over them in the spring ; I have known a draught net take, in this month, often, what we call fry or smoults.

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2161. Have you any suggestion to offer, or any further information to give the Committee?

I would suggest that the close time should be longer.

2162. Duke of *Richmond*.] Do you mean earlier close time?

Yes ; I think it ruins the fish when they are near spawning. I have known a great number of them caught ; they are easily caught when they are near spawning.

2163. Earl *Ducie*.] When would you propose that the close time should commence ?

The end of August, I think, on the Deveron ; I know the Deveron to be a late river ; still I think the end of August would do.

2164. Would you have one close time for the whole of Scotland ?

Yes ; I have viewed a great many of the fishings in the Highlands of Scotland, and I found that they were sooner at the spawning than what they were upon the river Deveron, though it is a later river than the Spey.

2165. You have suggested an earlier close time ; have you any other observation to offer to the Committee ?

None.

The Witness is directed to withdraw.

[Adjourned to To-morrow, at One o'clock.]

Die Veneris, 15^o Junii 1860.

LORDS PRESENT:

Duke of RICHMOND.
LORD STEWARD.
Earl CAWDOR.
Earl DUCIE.
Viscount HUTCHINSON.

Lord COLVILLE of Culross.
Lord POLWARTH.
Lord LOVAT.
Lord STANLEY of Alderley.

THE LORD STEWARD in the Chair.

MR. JOSEPH BISSETT is called in, and examined as follows:

Evidence on the
Salmon Fisheries
(Scotland).

Mr. J. Bissett.

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2166. *Chairman.*] I BELIEVE you reside at Findhorn ?
Yes.

2167. And are manager of the fisheries of which Messrs. Ross & Company are the lessees ?
Yes.

2168. Under Mr. Munro, of Novar ?
Yes.

2168*. Duke of *Richmond.*] Is Mr. Peter Brown, of Linkwood, one of the lessees of those fishings ?
Yes.

2169. *Chairman.*] You have had considerable experience in salmon fisheries in Scotland, both in sea fishing and also in river fishing ?
I have had very little experience in river fishing in Scotland ; principally sea fishing.

2170. You were for some time the manager of sea fishings at Berry Hill, near Aberdeen ?
Yes.

2171. You have also had some experience of salmon fishings in Ireland ?
Yes, three years.

2172. On the west coast ?
I was in the north, and on the west coast, and the south. I was at Ballycastle, in the north of Ireland, county Antrim, and I was at Dunmore, in the county of Waterford ; and I was at a river called the Cashen River, on the west coast, in the county of Kerry.

2173. Were all those fishings carried on by means of stake and bag nets ?
There were bag nets at two of them, and there were some stake nets at the Cashen River.

2174. Do you believe that the salmon in the rivers with which you are acquainted frequently ascend the rivers for other purposes than those of spawning ?
I think they do.

2175. What are those purposes, so far as your knowledge enables you to say ?
It is generally considered that they go into the rivers to free themselves of sea lice. I do not know whether it is a true argument or not, but it is an argument used.
(135. 7.)

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used. I know they go up and come down, and go out to sea again, daily; sometimes they may run right up, but it is not generally the thing with salmon to get into the river; they go up for a distance and come down again. I have particular experience in the Findhorn, because I see that Mr. Hogarth kills a great deal of salmon returning, and which are caught in his stell nets in the estuary.

2176. Earl *Ducie*.] Do you think that those fish which return from the river go higher up the river than where the tide reaches to?

I could not say; they may.

2177. Earl *Cawdor*.] Would not the fish be going back to wait for the next tide to go up; or do you think that they are going out to sea again?

Yes, going out to sea.

2178. Lord *Colville* of Culross.] What induces you to think so?

Because I have seen them on several occasions go to sea, clean out. At the mouth of the Tweed, I saw them one night in particular going out, and leaping as far as the eye could reach; that was in a very fine clear night in the month of August. I think it was about 18 years ago.

2179. *Chairman*.] Do you doubt the fact that all fish that are seen in and about the mouths of rivers are desirous of ascending or are about to ascend the river?

Yes, I doubt the fact. I believe that they are not all.

2180. Have you seen them passing from the mouths of any of these rivers to sea, in large numbers?

Yes, I have.

2181. At what period of the tide was that?

It is a good while ago; as far as I can recollect it was flood tide.

2182. Have you seen them leaping sometimes into the sea, at a considerable distance from the mouth of a river?

Yes, as far as the eye could reach, in a very fine night I have seen them.

2183. Lord *Colville* of Culross.] This was at the mouth of the Tweed, I think?

Yes, where I refer to.

2184. Do you happen to recollect if there was a spaight in the river at the time or not?

Yes, I recollect there was not. The time was a very dry time, I think; as far as I can recollect it was the month of August.

2185. *Chairman*.] Does a heavy fresh prevent the fish from entering the Findhorn?

A very heavy fresh does, but a light fresh is an encouragement. A third heavy fresh in summer is almost sure to drive them away altogether for the season, and indeed one fresh puts them away for some time; but they generally do return after the first spaight. It is different in spring; they persevere more in spring.

2186. Are the sea-caught fish superior in quality to fish taken in the river?

I think so.

2187. Do they command a higher price in the market?

That I do not know; but it is a fact that the fish do not live so well in the fresh water as they do in the sea.

2188. Lord *Colville* of Culross.] For a week after they have been in the fresh water they do not fall off, do they?

I never had experience to observe it so closely as that; but I think that their principal food lies in the sea.

2189. *Chairman*.] Has there been any falling off in your time in the quantity of salmon taken in the sea fishings with which you are connected?

I do not think there is any falling off; there is an increase this five years in our fishings at Findhorn.

2190. Do you know whether there has been any falling off in the river fishings in that period?

There

There has been a falling off in the Findhorn, I believe ; I had not an opportunity of seeing the Findhorn before that ; it is only what I have heard.

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2191. Assuming that to be the fact, to what cause do you attribute the falling off?

To several causes ; it may be traced to the increased quantity taken by us to some degree, but to other causes as well : for instance, this has been a very good season for the Findhorn, and there are the same quantity of nets used on our fishings, and equally as stringently persevered in as ever ; it is just the season ; there are fluctuations that I do not think anybody can account for ; the seasons do not suit all places alike.

2192. Lord *Lovat*.] Have you more nets employed than you had at first ?
More than the first year.

2193. Earl *Cawdor*.] Are there many fish caught up the Findhorn in the earlier part of the year ; at this time of the year ?

I cannot say ; I do not think they can.

2194. What is there to prevent them ?

The sweep nets continually going.

2195. Are there any cruives ?

No, I do not think there are ; I know of none ; unless there is a heavy fresh, so that they cannot manage those sweep-nets, they can almost prevent any fish going up.

2196. *Chairman*.] I understood you to say, just now, that heavy freshes deterred the fish from entering the river ?

A moderate fresh is an encouragement for spring fish.

2197. If it is a heavy fresh they cannot enter, and if it is a small fresh they are taken by the sweep-nets ; is not that so according to your account ?

The greater part are taken by the sweep-nets.

2198. Earl *Cawdor*.] In point of fact, do very early fish get up the Findhorn ?

I think very few get above Mr. Hogarth's early nets.

2199. If they happen to escape those nets, is there any natural impediment to their getting up the stream ?

Not that I know of ; I am not very much acquainted with it.

2200. *Chairman*.] Are there stake and bag nets situated to the east or west of the estuary ?

There are, on both sides. Mr. Hogarth intervenes between the river and us on the west side, with some bag and stake nets.

2201. Earl *Cawdor*.] Has Mr. Hogarth a stake and bag net in the river between you and the river ?

On the west side.

2202. *Chairman*.] Are there many other stake and bag nets besides yours and Mr. Hogarth's in that space ?

Not in that space ; betwixt the east end of ours and the west end of ours there are only Mr. Hogarth's.

2203. Adjoining or near yours ?

Yes ; there is Mr. Geil's nets kills a great many fish near Burgh Head. The Nairn fishings come in upon the west ; Mr. Mann, of Nairn.

2204. Has the Duke of Richmond any bag and stake nets at the mouth of the Lossie ?

There are bag nets ; I never saw stake nets : he had bag nets. I have not seen them this year.

2205. That is the river next to the estuary of the Findhorn ?

Yes ; and I think the next is the Spey, as far as I know, upon the other hand.

2206. Do you believe that enough fish escape the stake and bag nets, both
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east and west of the estuary, to stock the river, supposing that they are not destroyed by other means?

I am perfectly sure there are.

2207. Duke of *Richmond*.] Do you know a place called Lagullus, on the Findhorn?

No, I am not acquainted with it.

2208. You state that the fish cannot go up early in the Findhorn; are you aware whether there is not a great obstacle in the river Findhorn, not a great way from Lagullus?

I heard there was an obstacle there, but I cannot speak to the truth of that. I heard there was a basket or something placed there.

2209. *Chairman*.] Do you believe that all the fish that go up the river before the 15th of July go up for purposes other than spawning?

Yes, I believe they do.

2210. Then they are not breeders?

They are not breeders at that time, I believe.

2211. Lord *Colville* of Culross.] Still you find they all have spawn in them, do not you?

They all have spawn in them later than that, I know.

2212. Every fish that goes into the river has roe in it?

I could not say every fish; but I know a great many of them have.

2213. *Chairman*.] What is the best season for grilse fishing?

On our fishings the best season is from about the 20th of June up till, I should say, the end of July.

2214. The grilse are all breeders, are they not?

All the grilse that ever I opened; I have cut up a great many of them.

2215. Is it your opinion that they do not ascend the river for the purpose of spawning till after the month of August?

I do not think that many of them, at all events, go up before the end of August for the purpose of spawning.

2216. Duke of *Richmond*.] What do you suppose the grilse make an excursion up the river in the month of June for, to go back again down to the sea, and then to return again in August for spawning; what leads you to that opinion?

Because I have seen them going up and returning back, and have seen them killed in hundreds on their return.

2217. You do not know that the same grilse that you saw go up the river in July and come down again ever came back again to the river?

I could not say as to that, and nobody could, I think.

2218. *Chairman*.] Can you, generally, recognize the salmon that frequent the particular rivers with which you are acquainted?

I think it is a pretty general thing that they do.

2219. If a salmon were brought to you, should you be able to say it was a Findhorn salmon, a Lossie salmon, or a salmon from any other river in that district?

No, certainly I would not.

2220. Do you think it would be possible for an experienced fisherman to do so?

I think if they were fetched out ten miles out of any of those rivers they could not distinguish them, in my opinion.

2221. Duke of *Richmond*.] Would you know a Findhorn salmon from a Tay salmon?

I never have seen a Tay salmon.

2222. *Chairman*.] A Tweed salmon?

Yes, I know Tweed salmon.

2223. Do

2223. Do you think there is a distinction between Tweed salmon and Findhorn salmon?

I think the Tweed salmon are larger; but really if any man was to bring me, at the present time, a salmon from each of those rivers, I am quite sure I could not tell which they belonged to.

2224. Duke of *Richmond*.] Could not you tell an Irish salmon from a Scotch salmon?

I do not say that I could do that either; there are such a variety of sizes and shapes even in one locality that a man could not definitely say.

2225. *Chairman*.] Do you think that the fishing season closes too late now?

I think the fishing season is too late in closing.

2226. And that it commences too early?

I never saw anything to lead me to say that it commences too early.

2227. What is the time that you would yourself fix for the opening and what for the closing of the fishing season?

In most rivers that I am acquainted with I think the 1st of February is a good enough time as far as my experience goes, and I would certainly close, at the very furthest, on the 26th of August. I would not allow any fish to be killed after that in any place that I have had experience.

2228. Lord *Colville* of Culross.] Do you think you are dependent upon the rivers for your stock of fish, or do you think the fish breed elsewhere?

I think the salmon breed in the sea as well.

2229. Why do you think so?

One reason is that there are such a small quantity found in the river breeding; for instance, the fish caught in the River Findhorn by Mr. Hogarth and by us on the sea coast are about 8,000, and there are never more than 50 or 60 pairs seen spawning in the Findhorn at any season. I never had experience seeing them myself, but those that should know what takes place in spawning time have told me, in the last year, that they never saw more. The question is, where do the rest spawn?

2230. Earl *Ducie*.] You say that you never saw above 50 or 60 spawning; do you know what the number of the ova is in each spawning salmon?

I have heard it averaged at 18,000; I do not think that is the average; I think that is too much, but I never had any experience.

2231. Lord *Lovat*.] Do you know how many miles up the Findhorn the salmon can go?

No.

2232. Earl *Ducie*.] Did you ever hear that impregnated ova of salmon are destroyed by contact with salt water?

Never. A man of great experience was telling me just lately that he has seen them within where the tide rises in the mouth of the Dee.

2233. Earl *Cawdor*.] Spawning there?

Yes; a man of great experience told me so.

2234. Lord *Colville* of Culross.] That he has seen them spawning in the tide-way?

Yes.

2235. Who is this man?

John Hector, of Aberdeen.

2236. Viscount *Hutchinson*.] Supposing you were assured as a fact, that experiments have been tried, and it has been found that impregnated ova of salmon are destroyed by salt-water; how would that affect your theory that salmon do, in point of fact, spawn in the sea?

Of course if it be actually the truth that the spawn is killed by salt water, they might spawn in the sea, but the spawn could not come to life.

2237. Lord *Stanley* of Alderley.] Did you, yourself, or people whom you employ, ever see any young salmon in the sea?

No, it would be a very difficult thing to see them in the sea, and I think, myself, that they go far out when they spawn in the sea; because if they do spawn

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in the sea, I think they have so much instinct about them not to spawn near to the land where the heavy seas are.

2238. You never heard of anybody who ever had seen any salmon fry in the sea? I never did.

2239. You, yourself, never saw the salmon depositing their ova in the sea; have you heard people say that they have seen them parting with their milt and with their ova within the tide mark, or anywhere in the sea?

No; I tell you just the instance that that man told me in the mouth of the Dee, and within the tide rise.

2240. Of your own knowledge you know nothing about it?

No, I do not.

2241. *Chairman.*] Are all the fishings, in the rivers of which you have any knowledge, subject to great fluctuations in respect to the yield or take of salmon?

Yes.

2242. On the whole, you do not believe that the quantity taken is less than it was when you were first connected with those fishings?

No, I do not think there is any decrease, as far as my knowledge goes.

2243. Lord *Stanley of Alderley.*] Did you ever take any kelts or foul fish in your stake-nets?

No; in all my experience I have not seen above one or two.

2244. You have no reason to think that you have ever taken any salmon in your nets which have been returning from the river?

I could not say whether they have been returning from the river, but I saw no marks of the river on them; they were quite sound and healthy, with the exception of one or two, and I think that those were killed upon Berry-hill, near Aberdeen; I just recollect one or two brown fish.

2245. When the salmon leave the river, do you think they get into the deep sea, or do they keep along the coast?

Sometimes they may keep along the coast, I think; when they are leaving the river, after being a while in the river, I have no doubt but they go to the deep sea.

2246. *Chairman.*] Do you believe that since the establishment of stake and bag nets, the supply of salmon has been more regular?

I think I said that it has.

2247. And that the public has benefited thereby?

I should think so.

2248. Has the price risen much since you first became connected with the management of those salmon fishings?

Yes, the price has risen a great deal.

2249. You are speaking of the price you get on the spot for your salmon?

Yes.

2250. The price that factors gave you for the salmon?

The price that we get from London I am speaking of.

2251. We have had it in evidence that the price has not risen materially in the London market; how is it that you get a better price for your fish at Findhorn?

Taking one year with another, perhaps it has not risen. I know we have a better price than we have had for many years. We have sold salmon at 8 *d.*, and grilse at 6 *d.*

2252. What are you getting now; what is the present price of salmon on the spot?

The last account I think is 1 *s.* 1½ *d.* in London, and they are selling them at 1 *s.* on the spot.

2253. Duke of *Richmond.*] Do you consign your salmon from the Findhorn to Billingsgate?

They are consigned to Forbes, Stewart and Company.

2254. You say that the price now they sell it for is 1 *s.* 1½ *d.* a pound?

I think

I think that was the last that we got ; but it rises and falls every week almost.

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2255. Out of that 1 s. 1½ d. what has to be deducted ?
At the last account that was the price including expenses.

2256. After deducting the carriage ?
Including the carriage.

2257. And the commission ?
Including the commission.

2258. Lord *Stanley* of Alderley.] Have the salmon diminished in quantity that have been taken in the River Findhorn ?

Yes ; I think I said that they had diminished in quantity.

2259. Then the take of salmon has increased in the sea fishings and diminished in the river fishings ?

Yes ; the take of salmon has increased in the sea ; but I think I told your Lordships that this year was an exception. They have had very good fishing this year in the River Findhorn.

2260. Earl *Cawdor*.] To what cause do you attribute the diminution of fish in the river ?

There may be several causes at work there ; the increased quantity killed in the stake and bag nets is one reason, and there may be other reasons, such as weather ; the weather suits one place, and does not suit another.

2261. Do you think the falling off in the river may be attributed to over-fishing in the river ?

I do not say that they have over-fished any more these two or three years than they have done formerly. I know they fished very hard in the river.

2262. Lord *Stanley* of Alderley.] Do you think that those fish taken in the stake nets would go up the river if you did not take them ?

I do not think they would be allowed.

2263. You mean they would be caught in the river ?
Yes.

2264. Then in fact you only catch them before they go to the river ?

We catch all that we can, and the river people do the same, and very right too.

2265. Earl *Cawdor*.] Do you think that the upper heritors on the Findhorn get many of them ?

I do not think it.

2266. *Chairman*.] Do you consider the sweep net, in conjunction with the cruive, a very destructive engine ?

Yes, most undoubtedly.

2267. There is no Sunday slap in your stake or bag nets, is there ?

No, there is no Sunday slap just now ; but the stake nets are inoperative in the half tide always.

2268. Would it be possible to enforce the observance of the Sunday slap in your fixed nets ?

I think it would be very difficult indeed in this country.

2269. Lord *Stanley* of Alderley.] What would be the difficulty ?

The rough seas.

2270. When there was no rough sea, do you think there would be any difficulty in your giving the salmon the Sunday slap with your stake nets and bag nets ?

There is no doubt it could be done when there is no sea ; it would be done at very great inconvenience and loss to the sea fisheries, because the nets take so much time to take them up and put them down.

2271. Lord *Colville* of Culross.] Do you think it fair there should be a Sunday slap in cruives and not in stake nets and bag nets ?

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The cruives comprehend the whole river; they take in the whole of the fish in general that are in the river; whereas our nets leave them plenty of room to get past, and are, a great many days during the season, inoperative from bad weather; the cruives are an entire barrier to the fish getting up the river, if they are thoroughly put in.

2272. Do you know of many fish being injured in the bag nets and stake nets when you cannot get to them in rough weather, and by seals and porpoises? No, very few.

2273. Very few damaged fish are taken out of your bag nets? Very few; unless it is a very great storm.

2274. *Chairman.*] Would it be possible to fish that part of the coast upon which your stake and bag nets are fixed by means of net and coble?

No, I do not think it would; it would not yield, in my opinion, sufficient to be worth the fishing.

2275. But the stake and bag nets are an expensive mode of fishing, are they not; the wear and tear being very considerable?

They are a pretty expensive mode; they employ a great many men. I think they are the best mode, because they divide the produce of the fish amongst a great number of poor working men.

2276. You also think, notwithstanding their expense, that they are a more profitable mode of fishing?

More profitable, there is no doubt, than any other mode of fishing in the sea, notwithstanding all their expense.

2277. *Lord Lovat.*] How many men does it require to attend to a bag net?

You cannot work one bag net without four men, and you can work, say half a dozen, with four men.

2278. And the stake net?

Four good men will work four bag nets, and perhaps four fly nets in conjunction.

2279. *Chairman.*] With regard to the Sunday slap, is it not the fact that in Ireland the owners of stake and bag net fishings are by law compelled to remove the stake and bag nets on the Saturday night, and not to replace them till Monday morning?

They are compelled to move the bag nets, and are compelled to open the stake nets, to leave the slap in the sea end of them, and, I think, to raise up the fly net leaders.

2280. Would there be any greater difficulty in complying with this requirement on your coast than on the coast of Ireland?

A great deal more than those parts of Ireland where I have been.

2281. The west coast of Ireland is a very exposed coast, and the sea very rough, is not it?

Not where I have been; there are, no doubt, exposed places in Ireland, but I do not know whether they fish there or not.

2282. *Viscount Hutchinson.*] I think you stated that at one time you were connected with the Cashen river, in Kerry?

Yes.

2283. What year was that in?

I think it is eight or nine years ago, as far as I can recollect.

2284. Who were the proprietors of the fishings you had charge of there?

I am sure I do not recollect his name, but I will tell you who were the lessors, Mr. Bateman and Mr. Cassey, of Cork?

2285. Was Mr. Julian Basin the proprietor?

No, I do not think he was; I think the proprietor lived at the mouth of the Cork harbour, as far as I recollect, on one side of the river; there were two proprietors, one on each side of the river.

2286. What

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2286. What species of engines did you use on the Cashen for catching the fish?

Those sweep nets.

2287. Not stake or bag nets?

No, not in the river; the Irish law says you shall not use anything of that kind in the estuaries even.

2288. Had you any stake or bag nets outside the estuary?

Yes.

2289. How many?

I had two bag nets and one stake net; two bag nets to the south and one fly or stake net to the north.

2290. *Chairman.*] Do you believe that one effect of the stake and bag nets is to divert from their course the fish that are about to ascend the river and to turn them back to the sea?

No, I do not believe it.

2291. Do you believe that those that are not taken in the nets, upon coming in contact with the net, pass round it?

Yes; it is natural to think before a fish gets into a stake net or a bag net he must be very familiar with it; he cannot be anyways frightened; he has to go into a six-inch doorway; it cannot be supposed that that would frighten the salmon when they must be so familiar with the net, and be so close that they go into a six-inch door before they are caught.

2292. *Duke of Richmond.*] Do not the fish, when they are in the bag nets, struggle very much to get out of them?

No.

2293. Are not the scales rubbed off the fish that are caught in the bag nets?

Never, unless it is a heavy sea; I never saw a scale of the fish hurt unless it was a heavy sea.

2294. Did you ever see one hurt in the stake nets?

No, not unless it was a very heavy sea; I have seen them swimming about quite comfortable and easy, and I am sure they never knock a scale off themselves.

2295. *Lord Stanley of Alderley.*] Do you think that the salmon, in coming into the river, keep close along the shore or keep out in deep water?

They sometimes keep in deep water, and sometimes close along the shore; they come in at different points.

2296. You think many of the salmon do not come near the shore, but continue their course in deep water?

I am quite sure many of them never come into shore; they keep their course in deep water, right into the river.

2297. *Duke of Richmond.*] Is the Saturday slap in the stake nets and bag nets in Ireland very rigidly observed?

Yes, it is rigidly observed; it requires a great staff of men to see that it is; there is always litigation, and row, and humbugging about it.

2298. Still it is perfectly practicable, though it may be expensive, to observe the Saturday slap, both in stake nets and bag nets?

It is possible, sometimes.

2299. *Lord Colville of Culross.*] If you were told you should not have any stake nets and bag nets unless you had a Saturday slap in them, you would manage a way to have it?

We would try; there would be many times we could not observe it; then a dispute would arise. You would not go out and risk your life. You may have a man set over you to see that you observe it, who does not understand the sea, and he may want you to go out and risk your life; he may pull you up, and very likely you would be fined upon his evidence.

2300. *Duke of Richmond.*] What are the wages that you give the fishermen who work the bag nets on the Findhorn?

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On the average, I think, the wages that I give would be about 16 s. 6 d. or 17 s. a week.

2301. Do you give that in wages, or do you include the weight of the fish they kill?

I include every perquisite.

2302. What is the money wages that you give to a man when he comes to engage himself as a fisherman with you?

I give 10 s. and 12 s. a week.

2303. How much a pound?

I give 1 s. a pound off every 436 lbs., that is what we call a barrel; but I have had them on different engagements.

2304. Do you find any difficulty in getting good men for that purpose?

No, I do not find any difficulty, because I use them pretty well. I always get them to come to me willingly, though I work them very hard.

2305. What do you give the men that look after the stake nets; are they the same?

The men that look after the stake nets with me look after the bag nets also.

2306. Do you give them anything in kind; do you give them whisky?

Yes, I allow them a little whisky when it is hard work.

2307. That is not part of the bargain?

No part of the bargain.

2308. Do you know whether other tenants feed their people, to a certain extent?

I do not think it now; they did at one time, but not now, so far as I know; I never heard that they did.

2309. Will you describe what the duty of your fishermen is; beginning, we will say, on the first day of the opening of the fishing, what is it that man's duty to do?

I divide our fishing-ground into four stations, and I have a man at each station, at a little more wages than the rest; he overlooks them in my absence, and sees that the work is carried on, and properly attended to; he is responsible that everything is properly done. Whenever they come home they commence preparing their nets, and as soon as a convenient time arrives, that is, when the spring tide comes after the opening time, we begin and put up our nets at all places, and catch them as fast as we can; then his duty is after the nets are up to attend to them, and keep them clean, and fish them. Very often we get heavy storms, and he must go there, night and day, at any hour; whatever hour the tide comes, he goes to the nets, and takes out the fish, if there are any, keeps the nets clean, and mends them when they get broken; that is his duty from beginning to end.

2310. What do you give that overseer man?

He is called a foreman; he is called a canner about Findhorn; I believe the principal, such as myself, is called a canner too.

2311. Do you give the weight of the salmon to each station, or do you take the whole of the four stations and divide the whole of the weight?

I take the whole four stations, and they are paid for what fish they send away, or what fish comes into the ice house. It is different with what I have called the foremen; I pay them each off their own station; that makes them persevere the harder, each man with his own.

2312. Do you give the men any other perquisite, their boots, or anything of that kind?

I give them 1 l. for boots.

2313. Have you a boy on each station?

Yes, I have a bothy or house at each station.

2314. *Chairman.*] Do you think that the men employed in the stake and bag net fisheries are exposed to as much hardship as those that are employed in the fisheries by means of the net and coble?

I think

I think they are exposed to more; they are exposed to no hardship in the estuary; the stell net and net and coble men; but these men of ours are continually at work.

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2315. Do not they fish by net and coble?
They fish by stell nets in the estuaries.

2316. On the open coast?

They do not fish on the open coast, Mr. Hogarth's people; at all events, I never saw them use such a net; I think there is one place; they can do so if they like, but they do not do so, or very seldom.

2317. Duke of *Richmond*.] What happens to those men at other times of the year, when the fishing is at an end; during the close time what becomes of the men?

They generally get work about home; I take my men all from Aberdeen; they just go home when I have done with them; they have people in Aberdeen that are in the habit of giving them work, and they come again when the season comes on.

2318. *Chairman*.] Are not they sometimes engaged in fishing for white fish?
No, none that I know.

2319. Duke of *Richmond*.] Are not a great many of these river fishermen natives of the neighbouring villages and neighbouring cottages?

They are, in the Findhorn, I believe, altogether natives of Findhorn.

2320. Do you know whether they are not in the habit of going to collect the harvest in different parts of Morayshire and the neighbouring counties, and work as farm labourers?

Not Mr. Hogarth's people; our men sometimes do that when the harvest is not too early; when the harvest is late enough to allow them to engage in it after leaving our work, they do it.

2321. Would it not be a boon to that class of men if the close time were in the middle of August, or the end of August, instead of going on to the 14th of September, because they would have a better chance of obtaining work?

It would be a boon to the fishing in general, and to them too.

2322. Are there any of them crofters?

Not belonging to me; there are in many places that I know.

2323. Do you happen to know anything of the Spey?

No, I do not know anything about the Spey at all.

2324. *Chairman*.] Can you suggest any further amendments in the existing law?

I think myself if the close time were made a fortnight or three weeks earlier, and the river properly watched, there is no fear of the falling off of the fish.

2325. Should there be any alteration in the size of the mesh?

The river nets have a very small mesh.

2327. Do you think it would be an advantage to increase those meshes?

Yes, because of the young fry I have often seen taken ashore with them; there is no doubt when they hauled the net ashore, a good deal are killed before get into the water again.

2326. You take no fry or smoults in stake or bag nets?

No, because the net stands steady; every mesh standing square, it is four inches.

2328. Lord *Stanley* of Alderley.] Do you ever catch any other kind of fish in your stake and bag nets?

Sometimes a flat fish and some cod, but very few.

2329. Lord *Colville* of Culross.] How late do you fish with your nets on the Findhorn?

On the 26th of August we always drop it, because we consider that it is to our advantage.

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2330. *Chairman*.]

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2330. *Chairman.*] That is because you think that it is advantageous for yourself; you are not bound by law to close so early?

No; but Mr. Giles, who fishes next to us on the east side, he generally keeps on till near the end, so he takes advantage of our dropping it.

2331. Earl *Ducie.*] You give it up because you find it does not pay any longer?

Mr. Hogarth giving it up in the river, we considered, besides not paying (it might pay some years), it would be an advantage to us; we get a share of the benefit as well as the proprietors in the river.

2322. Lord *Lovat.*] Does Mr. Hogarth leave off on the 26th of August?
Yes; always since I have seen the fishings.

2333. Lord *Colville* of Culross.] Does Mr. Hogarth fish with sweep nets?
Yes.

2334. And always has one net following another?

I think there is no prospect of fish escaping his nets at all, where the river is small; there is a ford or place where the water runs thin: they can see the fish. A man stands and looks there, and there is a coble and net above, and whenever he sees a fish moving over this ford he calls out to cross with the nets; he crosses and sweeps him in shore, taking in all the river.

2335. Do they use those sweep nets night as well as day upon the chance of fish coming?

Yes, on the chance of fish.

The Witness is directed to withdraw.

WILLIAM JOSHUA FFENNELL, Esquire, is called in, and examined
as follows:

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2336. *Chairman.*] I BELIEVE you are one of the Commissioners of Fisheries in Ireland?

Yes, I am an inspecting commissioner.

2337. Under the Act of 1842?

I was appointed an inspector under the Act of 1842, and was made a commissioner under the Act of 1848.

2338. Have you held that office ever since, without interruption?
Yes.

2339. You consequently have had considerable experience in the salmon fisheries of Ireland?

So far as holding office, and living on a salmon river from boyhood, and taking an active part in it, I have.

2340. Viscount *Hutchinson.*] Before you became a Commissioner of Fisheries, I believe you took a considerable interest in the question of the salmon fisheries?

Yes, I took rather an active part from boyhood, and indeed almost all my life through, in the protection of the river upon which I was located, and in the district generally.

2341. *Chairman.*] You are, I believe, conversant with the law of Scotland as well as with the law of Ireland with regard to salmon fishing?

I have made myself acquainted with it.

2342. Before we enter upon the question of the Scotch fisheries, perhaps it may be convenient to know what is the present state of the law in Ireland with regard to salmon fishings; will you inform the Committee what was the state of the law before 1842, and the various changes and amendments that have been made?

Before 1842 there were 26 Acts of Parliament in force, commencing, I think, in the reign of Edward the Fourth, and coming down to the first of Victoria, and the fisheries were in very great confusion; these Acts of Parliament, in fact, were
a dead

a dead letter, generally speaking, except in some districts where people had substantial private interests and rights, which do not prevail at all in Ireland so much as in Scotland. In those districts in the north of Ireland, particularly where people had large properties in the salmon fisheries, they did cause the old laws to be carried out to a great extent; but in other parts of Ireland where the public right prevailed, and there were very few private rights, the laws were not attended to at all. In that state of things the Legislature took up the matter in 1842, and it repealed and consolidated those 26 Acts of Parliament on very different principles from the old ones; and the 5th and 6th Victoria was passed in 1842. In the working of the 5th and 6th Victoria certain defects and deficiencies disclosed themselves, and there have been five Acts passed since; therefore we have now six Acts of Parliament regulating the salmon fisheries, and the Chief Secretary for Ireland has directed us to prepare a consolidation and amendment of those six Acts, not altering the principle, but making certain amendments that are necessary to be made, in order to have the clear intention of those Acts carried out; he intends to have the bill read the first time this Session and printed, so that the country may have the opportunity before the next Session of giving their opinions upon the details. That is the way we stand as to legislation at present.

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2343. Duke of *Richmond*.] When you stated that before 1842 there were 26 Acts of Parliament in force, you meant they were in existence, but not in force?

They were in existence, but practically not in force, except very partially.

2344. *Chairman*.] Has the Act, founded upon the Bill brought in by the Government, of which I was a member at that time, holding office as Chief Secretary, worked beneficially and well?

Yes; it did not work well until the Act of the 11th and 12th Victoria was passed, which provided funds. Since those funds were provided it has been working very well, and the fisheries have very materially improved. The principle of our law is approved generally, though some little modifications might be advisable; but it was found that there was a want of funds. There was no one to contribute. The Act of 1848 imposed license duties upon all engines employed in fishings, and rates upon the value of all fishings where any value could be ascertained; they are rated at 10 per cent. upon the poor law rating; and every person who fishes in Ireland, even by a rod, for salmon, pays a license.

2345. Are those fisheries assessed by the commissioners?

No; the Act provides a schedule of license duties.

2346. Is the value of the fisheries determined by the commissioners?

No, they are valued by the Poor Law Department, and a rate of 10 per cent. is levied upon them for the protection of the fisheries.

2347. Viscount *Hutchinson*.] The poor law valuation being something considerably less than the real annual rental of the fisheries?

Yes.

2348. *Chairman*.] What were the provisions of the Acts that were in force prior to the passing of the Act of 1842?

The law provided penalties for fishing in close season; one of the statutes prohibited the erection of fixed engines in tideways, and there were some provisions with respect to the King's share or free gaps in cruive weirs. There were stringent provisions about fishing with nets, and there were some very stringent provisions in other respects in the olden time; one of them was this: although the public right prevailed so much in Ireland, and was secured to the public under the provisions of Magna Charta, one of the old Fisheries Acts provided that a man should have 40 *l.* a year to qualify him to catch salmon in any way. There were several absurd provisions in them, no doubt; another provision was a heavy penalty for a man allowing his pigs to wander on the sea shore, on the ground that they devoured the fry of salmon and the spawn on the sea shore.

2349. Will you describe the main provisions in the Act of 1842?

Previously to the passing of the Act of 1842, some 20 or 22 years before, persons from Scotland came for the first time in Ireland, and erected stake weirs in the estuaries and bag nets upon the coast. They caught immense numbers of salmon at first in some of those places, and the lower classes of people who had rights to fish upon their common law right, as well as those who held

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river fishings, very soon began to feel the effect of the Scotch stake weirs and bag nets outside. In some parts of Ireland, in Waterford, on the Shannon, and in Donegal, about Ballyshannon, there were great conflicts, more particularly near Waterford. The people rose in immense numbers and prostrated the weirs by violence. There were lives lost on two occasions in the Waterford estuary, and the peace of the country was so much disturbed that the executive government felt called upon to take the matter up, and, having inquired into the law of the case, they found that those fixtures were illegal in Ireland. The owners of them were indicted criminally, and in many cases convictions were obtained; and there were prostrations of the weirs under those convictions. Still the capture of salmon was too tempting a thing, and, notwithstanding a man was convicted, the weirs soon appeared up again in another man's name. They selected paupers, and this state of confusion went on until 1842. Before they were put down, particularly in the Waterford estuary, they nearly annihilated the salmon. There were perhaps 2,000 persons engaged in what is called cott net fishing. It is all common fishery there, as in most of the estuaries in the south of Ireland, there being no private right whatsoever. Those men were entirely thrown out of employment, and they became exceedingly violent. I recollect myself in those days, at my father's, before the weirs were prostrated, and after they had got up to a certain extent, for three or four consecutive years, we never got a good fish during the whole season.

2350. Do you mean to say that there are no several fisheries in Ireland?

Very few. In the Boyne, which is a large river, the only several fishery is at "Oldbridge," at the junction of the fresh water and the tide. The public fish at Drogheda; all the river there is public. On the Slaney there is no such thing as a several fishery. In Waterford, in the whole of the estuary, the tidal waters of the Suir, the Nore, and the Barrow, there is but one several fishery, and that is a very small thing. It was a grant under a patent from the Crown, originally, to the monks of Dunbrodie Abbey. It was a thing called a timber tide-weir; it now belongs to Lord Templemore; it is a very trifling, paltry thing, but it is the only several right in the estuary, and in those three rivers.

2351. You mean by a several right of fishery, an exclusive right?

Yes, an exclusive right; several fisheries is a term of law; there is none whatever in the tidal waters of the Suir, Nore, and Barrow. Then, in the Blackwater, the Duke of Devonshire has certain rights. In the Lee, in Cork, there is no several right, except at a weir in the town; it terminates there, and the whole of Cork harbour, and all the tidal portion of the Cork river, is an open fishery. The great estuary of the Shannon is all open, except from the town of Limerick, for about eight miles down; there are over 50 miles open to the public.

2352. What is the extent of that several fishery, eight miles down the Shannon?

It is a very valuable fishery; it is a great cruive weir, called the Lax Weir; it is very ancient, and is the property of the corporation of Limerick; the owner, Mr. Gabbut, has held it for many years from the corporation of Limerick, for 300 l. a year. There is a lease with about 70 years unexpired, and two years ago that lease was sold to Mr. Malcomson, one of our great manufacturers in Ireland, and he gave 10,000 l., subject to the 300 l. a year for the Lax Weir fishery; that is the only several fishery on the Shannon in its tidal waters.

2353. Lord Stanley of Alderley.] Can you give the Committee a list of all the several fisheries which exist in Ireland?

If I had a little time I could approach very nearly to a list, but they are exceptions to the general rule.

2354. Are there any stake-nets now existing, or any cruive dykes, except in the case where several fisheries exist?

Yes, a great many; in fact there are very few stake weirs; I do not know that there is one stake weir in Ireland existing in a several fishery; all the stake weirs and bag nets, I may say, in Ireland, are held and maintained under the Statute of 1842, and were all declared illegal before 1842; but the Act of 1842 legalised them under certain limitations and restrictions.

2355. What were the limitations and restrictions under which the stake weirs and bag nets were legalised?

One was, that no weir should be erected except where the channel at low water of

of spring tides was over three quarters of a mile wide, and that no stake weir should be erected beyond low-water mark; and that no weir should be erected within one mile seaward or inwards of the mouth of a river.

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2356. Seaward, to what distance?

A mile from the mouth of the rivers; in case of dispute, the mouth of the rivers to be defined by the Commissioners.

2357. So that what may be called the estuaries of rivers are defined in Ireland by the Fishery Commissioners?

The mouths of rivers are defined by the Fishery Commissioners.

2358. So that no stake net is allowed to be erected within one mile of the boundaries so defined by the Commissioners?

That is qualified to a certain extent. It is provided that the restriction shall apply in those cases where the mouth of the rivers, as defined by the Commissioners, is not over half a mile wide. If it is over half a mile wide, the restriction does not operate.

2539. Taking the case of the mouth of the Shannon to the west of Limerick, is it competent to any person to erect stake nets upon the two shores of the river?

We have never been called upon to define the mouth of the Shannon, because where we should define the mouth of the Shannon, it would be over half a mile wide, and then the restriction would not be operative.

2360. Duke of *Richmond*.] Are stake nets permitted in Ireland by Act of Parliament?

Yes; and it was by a curious provision. It was admitted that no one could set up a claim to several or exclusive fisheries in the public waters that I have spoken of; but the 19th section of the Act first provided that where the width was over three quarters of a mile, any occupier of land holding a lease of which 14 years were unexpired, might set up a bag net or stake net. However, the proprietors of the land did not like this; and they got a proviso introduced into the clause, altering it, that no man should erect a net unless he had a lease of 100 years unexpired; and the effect has been to throw the fisheries into the hands of the proprietors of land, so far as the use of bag nets and stake weirs is concerned. In my judgment that provision has increased the number, because if it had been left to every tenant occupying land by a tenure of 14 years, I believe the law would have been repealed long ago.

2361. Lord *Stanley* of *Alderley*.] Is not there also another provision in the Act of 1842, by which no stake or bag net is allowed to extend further than from high to low water mark?

Stake nets, but not bag nets.

2362. What are the limits as to bag nets?

There are none whatever.

2363. They may extend for any distance into the sea, which the possessor of the shore chooses to extend them?

Yes; the bag nets would not be operative between high and low water. The bag nets may be set in deep water. There may be 20 fathoms under a bag net.

2364. Earl *Cawdor*.] Was not there a prohibition against having draught nets or other nets within half a mile of the river?

Fixed nets cannot be placed within a mile seawards or inwards, or draught nets used within half a mile.

2365. Duke of *Richmond*.] Are those draught nets what are technically called sweep nets?

They are upon the principle of what is called in Scotland the net and coble. We have some sweep nets.

2366. Do you know what stell nets are?

I know what they are; but we have no stell nets.

2367. Are they prohibited by law?

Yes; fixed engines are described in the last Act, the 13th and 14th Victoria; there were tricks played about what was and what was not a fixed engine; but

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the interpretation in that Act has put it beyond a doubt, for after calling stake nets, bag nets, and all those things, fixed engines, the clause goes on to say, "or any device held by the hand, or made stationary in any way whatsoever;" so that with those comprehensive words there could be no stell nets.

2368. Lord *Stanley* of Alderley.] Was not there another provision in the Act of 1842, with regard to stake nets and bag nets, that a clear opening free for the passage of the fish should always be kept?

In stake nets, four feet must be left open between Saturday and Monday in the chambers; but the regulation for bag nets for the weekly close time is, that the leaders shall be removed and taken out of the water.

2369. So that, in point of fact, there is a free passage for the fish left during every Sunday in the fishing season?

Yes; the time is from low-water next in point of time before six o'clock on Saturday evening to low-water next in point of time before six o'clock on Monday morning.

2370. Are those openings strictly observed?

Very strictly observed.

2371. What mode have you for enforcing the observance of the law in that respect?

There is an exceedingly heavy penalty. There is a minimum penalty of 10 *l.* and the forfeiture of the net. And we have fortunately, which is a very great value to the fisheries in Ireland, the aid of the coast-guard and constabulary.

2372. Is it the duty of the coast-guard and constabulary to see that those regulations are always observed?

Quite so. The coast-guard are most effective upon the water; they have seized from time to time very many nets, and removed the leaders.

2373. *Chairman.*] Is it practicable, in all states of the weather, to observe the provision with regard to the weekly close time in stake and bag nets?

Not in all states of the weather; there is a saving clause in the Act, that the owners of these nets are not subject to a penalty if stress of weather should prevent them from keeping the regulation. But that provision has been sought to be evaded upon very many occasions, when it was not right to do so; but it is not so much the case now, because, if the coast-guard galley can go out, and take away the leader, the owner of the net can do it; they have given up very much the tricks that were played.

2374. Is the evidence of the coast-guard alone sufficient that it might have been done?

Yes; they take away the leader, and it is the duty of the owners to do it themselves.

2375. Lord *Colville* of Culross.] Do the coast-guard receive any part of the penalty?

Yes.

2376. What proportion?

One-third. We co-operate with them whenever there is anything likely to come to a prosecution. We assign them legal assistance, and pay them for it.

2377. Lord *Stanley* of Alderley.] What is the close time now observed according to the Act of 1842, in the salmon fisheries in Ireland?

We have various close times.

2378. Are those variations governed by the decision of the Commissioners of Fisheries?

Yes.

2379. What regulates the making a different close time in one river to the close time in another river?

The evidence of parties, and the evidence obtained with respect to the fish entering the river early, or in other rivers that the fish enter late.

2380. Earl *Ducie.*] Are not your decisions reviewed from time to time?

We change them very often; when we make a decision for a close season it must

must continue for three years, and at the end of three years, if there is any cause shown, we can rescind it, and make another regulation.

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2381. Lord *Stanley* of Alderley.] Are not you obliged to publish the decision of the commissioners with regard to the close time?

We must publish it a certain time before, so that all parties may have notice.

2382. Where do you publish your decision as to the close time?

We publish it in the Gazette, and have it posted on all the usual places of posting notices in the district.

2383. Do you publish your decision in the local papers?—Yes; but the Gazette is the thing that is particularly required, although it is the very worst publication of the matter that can be.

2384. *Chairman*.] Do the various rivers in Ireland differ very much in respect to the commencement of the close season?

They do, to a certain extent; the Act of 1842 fixed a uniform season for all Ireland, giving power to the commissioners to change it. There was a very careful examination of the subject throughout Ireland, and the result was that the subsequent Act which passed, fixed a season for the tideways, giving the tidal fisheries a month before the fresh water fisheries, and giving the rod fishers 14 days after the netting ceased: still the power was reserved to the commissioners to change the seasons, and since then we have made various changes. Thinking it might be convenient to your Lordships, I have brought a schedule of the seasons for all the districts in Ireland. These are instructions containing digests of the Acts for the coast-guard, and constabulary, and water bailiffs, and at the end there is a statement of the different close seasons in Ireland (*handing in the same*). Perhaps it would also be useful to the Committee if I were to put in a schedule containing the result of the investigations with regard to the close season in all Ireland; it sets forth all the close seasons under the old statutes; it sets forth the close seasons sought for; it sets forth the times of spawning in the different rivers according to the evidence obtained; it also gives the catchment basins of most of our principal rivers, and it gives the remarks of the two commissioners, Mr. Moulvaney and Mr. Barry, who made the report a short time before I came into office (*delivering in the same*).

Vide Appendix.

Vide Appendix.

2385. *Chairman*.] What is the earliest day of commencing fishing in any river in Ireland, and the latest?

The earliest day of opening is the 1st of January in a very few rivers, and the earliest day of closing is the 12th of August; there are some the 20th of August, and some the 1st September and 15th September in a very few rivers; there are two rivers, the Slaney and a small river in the north of Ireland, that are allowed until the 28th September; they are the latest; they are generally from the 4th to the 15th of September. The 5th & 6th Victoria, and the subsequent Acts, sought to fix the commencement of the close season on the 1st day of September, but eight of the northern counties in Ireland, where these exclusive fisheries exist, and very valuable ones, were so opposed to late fishing, that they resisted it all through, and insisted upon closing on the 20th of August. It is rather interesting to see, in referring to this list of the seasons, fixed under the old statutes, how many of them were the 12th of August. The 12th of August prevailed as the time to close, and from experience now in Ireland, it is quite extraordinary to find how very much the people concerned in the fisheries are coming back to early closing; and many of them advocate the very day that the old statutes fixed. The close season on the Shannon, the greatest river in Ireland, was by the unanimous desire of the people interested in the fishings, which are very valuable, changed back from the 1st September to the 12th August; it has been changed for some years, and I do not think anything would induce them to alter it, and come back to the time fixed by the statute. I should also mention, in calling your Lordships' attention to this schedule, that you will see some of the rivers in Ireland exempted from any close season. The Lee, in Cork, was one where it was imagined that salmon were to be found every day in the year. No doubt they may in every tide-way in both countries, but very few, and for the sake of taking those very few salmon the people interested in the Lee, by an Act of Parliament, got themselves absolved from any close season; they have long since found out the fallacy of that. There is no river in Ireland that requires an early closing

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closing more than the Lee does now, although they might get a few salmon in December.

2386. Lord *Stanley* of Alderley.] How are the water bailiffs appointed, and how are they paid?

Ireland is divided into 22 districts. Under what is called the Assessment Act of 1848, the persons who pay license duties elect Boards of Conservators, and the license duties are paid into the funds of the conservators, and they appoint and pay water bailiffs, and the commissioners have nothing at all to say to that.

2387. Do the conservators of each district regulate the payment to be made to these water bailiffs, and the number of water bailiffs to be employed on each particular river?

Yes.

2388. Do you give a warrant to the water bailiffs or the coast-guard, or what authority have the coast-guard to interfere, in seeing that the regulations regarding salmon fisheries are enforced?

Under the statute law they are authorised and empowered to do all acts as water bailiffs. Water bailiffs are appointed under a form of warrant prescribed by the Act, signed by three of the conservators, the chairman, and two others.

2389. But the coast-guard and police have authority and power to do that without a special warrant?

Yes, under the statutes.

2390. Earl *Ducie*.] Do you find that these water-bailiffs are generally efficient?

In some cases they are, and in many other cases they are not; but they are much better looked after now than they used to be. The constabulary have caused them to be much more efficient, for we have in Ireland, fortunately for the fisheries, a great many thousands of constabulary stationed throughout the country at every seven or eight miles; and the police look after the water bailiffs, and the water-bailiffs look a little after the police, for they sometimes report each other.

2391. Is it possible for the lessee of a fishery to exercise his influence in such a manner that he shall have water-bailiffs appointed of his own nomination?

Quite so. Independently of either, there is a provision in the Act that existed before the Boards of Conservators were constituted, which is still preserved, and that gives any person in the country who has an interest in fisheries a right to nominate as many water-bailiffs as he wishes to employ and pay, by submitting their names to the magistrates at petty sessions, who grant the warrant prescribed by the statute. The magistrates, very properly, have a discretion not to give the warrant to a man whom they know to be a vagabond or an ill-conducted person; in that case, it must cost the persons 5s. for a stamp; in the other case, the appointment is exempted from stamp duty, but any person interested in fisheries can appoint as many water-bailiffs as he wishes.

2392. Lord *Lovat*.] Who pays them?

He pays them in that case.

2393. Earl *Ducie*.] Can a lessee of fisheries exercise his influence in the appointment of the conservators in such a manner as should be agreeable to himself?

In some instances he can, and it has been done to an improper extent.

2394. Can you specify any locality?

I could, but I would rather not mention names; perhaps I might be allowed to state, that some defects have disclosed themselves with respect to the election of those conservators, and there is a provision in the Bill which the Chief Secretary is now bringing before Parliament, to correct them.

2395. Is it consistent with your knowledge that such a notice as I now hand to you has been issued—(*handing the following Paper to the Witness*)?

Fishery Office,

Leave is hereby granted by the proprietors of the Fishery to
to angle in the Rivers and for salmon and trout,
from the present date to the 20th of August 185, it being expressly understood that all
salmon

salmon fry caught will be carefully returned to the river, and that all salmon taken will be sent to the Fishery Office, as soon after being caught as possible; and also that Mr. do vote at the election for conservators for the district, as the said proprietors or their agent may direct.

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Dated this day of On behalf of Proprietors.
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To the Waterkeepers and others appointed
to protect the above Fishery.

I have seen such notices, and I am quite aware that such notices have been actually issued.

2396. Do you disapprove of them?
Quite so.

2397. Lord *Stanley* of Alderley.] Is there not a provision in the Act of 1842 by which all fixed engines, and all cruive dykes and weirs are to be removed during the close time?

Yes; all bag nets must be entirely removed, and netting must be entirely taken off all stake weirs; and the inscales, as they are called, or apparatus for catching salmon in cruives, must all be removed and taken away, and every other net; draught nets must be removed away from the banks of the river, and not found in the vicinity of the river.

2398. Is not there also a provision that in all salmon and other weirs for the taking of salmon a free gap or Queen's share is to be left; will you explain what the Queen's share is?

It is a gap in the centre of the river; that Act of 1842 required that in all cruive weirs built after 1842 there should be a gap of the tenth portion of the river in the middle or deepest part, as the commissioners should direct; the Act of 1842 also provided that there should be a share open to that extent in all weirs then compellable by law to have the Queen's share; that is what has left the thing in a very unsettled way; originally, by the old statutes, every cruive weir in Ireland required to have the King's gap as it was called, or free share. But some neglected carrying out the law; many persons, and persons of influence, had built up their weirs and left no King's gap in them, and then in the reign of George the Third there came a statute which provides a summary way for opening all weirs that were found closed, except where the owner of the weir had established his closing of the weir for 30 years, so that now unless it can be shown that 75 or 73 years ago a cruive weir had the Queen's gap in it, we cannot enforce the Queen's gap. And the same principle I may be allowed to say was applied to stake weirs in the narrow parts of the estuaries, which I always thought exceedingly unjustifiable; I will take the liberty of saying that the Irish Parliament were not justified in rewarding a man who had violated the law successfully for thirty years; I hold that to be a very wrong principle. Then in the Act of the 5th and 6th of Victoria with respect to stake weirs, although they had been declared illegal, and had been tried and convicted, there was a clause introduced that no weir should be removed that had been established by the parties for twenty years before the passing of the Act; it was rewarding the violators of the law. In several instances in the Waterford rivers, persons, as soon as the law declared their weirs illegal, never erected them again; so that in the result the only persons who established their right were those who disobeyed the law, while those who respected the law have lost their right.

2399. What alteration do you propose to make in the law with regard to the Queen's gap, as you have stated that the provisions are somewhat unsatisfactory in the Act of 1842 in that respect?

I think it would be just and right for the benefit of the fisheries, and in most cases for the benefit of the parties who own those weirs, if the privilege of keeping them close were repealed; and I think it would be justified on the principle that there ought to be a Queen's gap in every cruive weir in the country.

2400. The effect of that would be that there would be a free opening at all times in the middle of the weirs for the access of the salmon up and down the river?

Yes; and I believe, in most instances, it would increase the property of the
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owners of the weir, by giving an equitable share of the fish to the upper heritors, who would then have an interest in protecting the water higher up the river.

2401. *Chairman.*] Is a provision on that subject to be introduced into the Bill of which you have been speaking?

No; our directions from the executive government were to make no amendment in principle; that would be left open for the country to suggest; we are not allowed to make any alteration of that kind, but merely such corrections in the obscure language of certain sections as will make the actual intention of the Legislature clear.

2402. Lord *Lovat.*] Are those weirs to which you allude mill weirs, or weirs for the purpose of catching the fish?

Simply weirs to catch the fish.

2403. Earl *Cawdor.*] Would not that slap be open all the week?

Yes.

2404. And, therefore, be a great advantage to the early spawning fish, by enabling them to go up the rivers?

Yes; it would give an equitable share of fish to the upper heritors, which some of the earliest laws of the Legislature contemplated; the Crown, in granting these weirs, did not mean that there should be a monopoly, but that the fish being migratory fish should pass up and down; that the parties in the rivers should only have a share as it passed them, and not the whole of the fish.

2405. Do you consider the early spawning fish particularly valuable?

I do, far more valuable than the others.

2406. *Chairman.*] Have not you and your colleague, on more than one occasion, reported to the Government your opinion that the construction of the Queen's gap should be enforced in every cruive weir in Ireland?

Yes. As the Committee have asked me upon that subject, perhaps it is right for me to state that the Act of the 5th and 6th Victoria provided, and the Act of the 13th and 14th Victoria amended that provision to make it operative, that where a weir was not compellable at law under that provision in the old statute we should have power to make a Queen's gap, giving compensation such as we thought would be fit to the owner of the weir, the parties applying for the gap to supply the funds. We have found it utterly impossible to carry that provision out. In the first place, an impediment existed in Ireland as to whom you would fix the assessment upon; it would not be fair to fix it upon the upper heritors in the fresh water, because the tidal water people would be greatly benefited, and it would not be fair to throw it on those who were following the employment of fishers. We have thousands of men of the lower orders who fish on their annual license; there are a great many in the Lee and the Blackwater; they are not available, and we could not get at them for their proportion of the assessment; therefore an attempt was made, in the Act of the 13th and 14th Victoria, to amend that provision so as to make it operative; it is totally inoperative.

2407. Lord *Stanley of Alderley.*] Do you think you could leave it to the conservators of the district to settle the amount of compensation and the mode in which the means should be acquired for providing the compensation to be paid to the weir owners?

I think they would be the very worst parties to propose; they would be one way or the other; some would be unreasonably hostile, perhaps antagonistic, to the weir owner, and, on the other hand, the weir owner himself, as a matter of course is a conservator, because everybody is *ex officio* a member of the Board of Conservators who is rated at 100 l. a year.

2408. *Chairman.*] Believing, as you do, that the proprietors of these weirs acquired the right to keep them closed unjustly, do you think there would be anything unfair in making the Queen's gap without compensation?

No, I do not think there is a cruive weir in Ireland that is entirely closed, that it would be unfair to open, for the actual owners of the weir, I honestly believe, would be benefited more than injured by it.

2409. Lord *Stanley of Alderley.*] In the Irish rivers are there any mill dams that act as a barrier to the salmon ascending the rivers?

A great many.

2410. Would

2410. Would it be desirable to enforce a regulation or provision similar to the Queen's share in those mill dams?

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It would ruin the mill, but we have a remedy that can be applied.

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2411. What is that remedy?

Putting ladders over those weirs. There is a provision in our Act with respect to weirs built before 1842, that the party applying for a ladder must supply the funds. Every mill weir built since 1842 is obliged to provide a passage for the fish over that weir such as we direct; we have been applied to in a great many cases, and the funds have been supplied by the parties. We have put up a great many ladders successfully in these weirs; we do not in the slightest degree interfere with the mill power, and we are not allowed to do so. When the money is supplied to us, we are arbitrary as having the power to put up the ladder; and the miller cannot resist us, provided we do not injure his power. We have put up a great many that are entirely effective, and we have not had any row with the millers, or any millers attempting to bring an action against us.

2412. I think you state that in the case of all mill dams erected since 1842, it is obligatory on the person so erecting these mill dams, to be at the expense of constructing a ladder for the ascent of salmon up the river, under your direction and supervision?

Yes; not to leave a gap in the weir, but to construct a ladder according to our directions.

2413. Will you state to the Committee the course which the commissioners have taken as to those ladders, the expense of erecting them, and the success they have obtained?

The expense varies from 40 *l.* to 120 *l.*; when an application is made to us, we send an engineer, and he makes a survey of the weir; he then prepares a plan and specification; we then call for the money to be lodged; if the money is lodged, we contract with a party to build the ladder, or let the parties find a contractor, and the whole thing is done.

2414. Can you put before the Committee any plan and section of your ladders?

Yes, we have a general plan prepared by a very eminent engineer in this matter, Mr. Forsyth, showing the principle which we apply, which of course, is modified a little, according to circumstances. I will hand in one of those plans (*handing in the same*).

Vide Appendix.

2415. Have any ladders been erected in the case of old mill-dams which existed previously to 1842?

A great many.

2416. How has the expense of erecting those ladders been defrayed?

In some instances private parties subscribed; but the Assessment Act authorizes the Board of conservators to apply a portion of the funds which they receive from license duties, and portions of those funds have been in many cases applied in that way; in other cases private parties have subscribed for the purpose.

2417. Are there different descriptions of salmon ladders, or are they all the same?

We have always adopted the principle shown in the plan I have put in.

2418. Duke of Richmond.] Can you compel the removal of a natural obstacle in the river; for example, is not there a fall in the Ballyshannon?

Yes; but it is no obstacle; all the fish that go up to breed, pass over that fall.

2419. Without a ladder?

Yes, without a ladder.

2420. If there were a natural obstacle preventing the ascent of the fish up a river, have you the power of compelling a ladder to be placed there?

Quite so. We did a thing in the north of Ireland that has been remarkably successful. On the Ballisodare River, near Sligo, there were very fine waters completely shut up by great waterfalls, and Mr. Cooper got an Act of Parliament which gave him the right of fishing in the fresh water, and to the whole of the Bay of Ballisodare, eight or ten miles, where no bag nets could be set up, if he

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made a fishery. He then applied to us to put up ladders; there were two or three falls; one over 25 feet, a perpendicular cascade, and another nearly as great, and the most successful results have followed from the erection of those ladders.

2421. Earl *Cawdor*.] What was the cost of those ladders?
Those ladders cost 400 l. or 500 l.

2422. Was the experiment successful?

Eminently so. This is the last report of 1858, in which all the details respecting Mr. Cooper's ladders are given (*handing in the same*).
Vide Appendix.

2423. Lord *Stanley* of Alderley.] Have the commissioners the power of removing any natural impediment, or making alterations in the beds of rivers where it is desirable to do so, for the purpose of enabling the salmon to get up the rivers?

Where there are shoals or ridges of rocks, the Commissioners have power, upon the funds being supplied by the parties wishing it, to remove those obstacles.

2424. Have obstacles been removed under your direction in many cases?
Some have been; not very many.

2425. Is there any regulation with regard to the distance of the bars in the cruives?

Two inches between the bars of the cruive weirs.

2426. Are there any other regulations as to their construction or position?

There is a general power given to us to order any construction that we may think is required.

2427. *Chairman*.] Do you think that two inches is sufficient?
I do think it is sufficient.

2428. You think an opening of two inches allows the small fish to pass through?

Yes; all fry can pass through freely.

2429. Lord *Stanley* of Alderley.] Have you any regulation with regard to the size of the mesh of the net?

Yes, one inch and three-quarters from knot to knot is the regulated size.

2430. Do you think that is a proper size?

Yes, I think it is very fair; it was two and a half inches, and the parties complained that the grilse, as they are called in Scotland, were injured in their appearance, particularly in coming to the London and Liverpool markets, by getting damaged in the larger mesh, from the fish getting their scales rubbed off; and after a good deal of complaint of this kind, on investigating the matter, we thought it fair to reduce the size of the mesh to an inch and three-quarters.

2431. Are there any provisions in the Act which enable you to prevent the throwing of deleterious matter into the river which might have a tendency to poison the fish?

Yes; there is a stringent clause in the Act, and we have caused many people at factories and places of that kind to make cesspools, in order to prevent the poisonous matter running into the river.

2432. Can that be done by a summary course of proceeding?
Yes; we bring the parties before the magistrates.

2433. What evidence would be sufficient to enable you get a conviction?

That this stuff was allowed to run into the water, and that in the opinion of persons it was poisonous.

2434. It would not be necessary to show that fish had actually been poisoned or injured by this substance flowing into the river?

No; I should mention, as I have been asked the question, that we have found great difficulty in dealing with the flax water in the north of Ireland. The flax trade is very large in the north of Ireland, and there is a vast deal of damage done by it to the salmon fisheries.

2435. By

2435. By steeping the flax?

Yes, and permitting the water to run into the rivers. The flax manufacture is so important a thing to that part of the country, that we have not been at all disposed to pull the strings too tight or recommend it, but we have taken measures to circulate a recommendation to the factories. In fact, it is an exceedingly stupid thing not to have some means of absorbing this flax water by peat earth, or in some other way, so that it can be carried away and put on the ground; it is very rich manure. When people are paying hundreds of thousands of pounds for guano and other artificial manures, it is a sad waste, and sad stupid negligence to allow it to go and injure the fish in the rivers, instead of using it for a beneficial purpose. I am quite disposed myself to think, that that would almost justify more stringent legislation, because, as well as saving the fish, it would compel a great many people to serve themselves.

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2436. Have you only the power of recovering a penalty from persons throwing deleterious matter into the rivers, or have you also the power of compelling the mill owners, or the persons employing those materials, to divert them from the course of the river?

Not to allow them to flow into the river in their injurious state. Another thing prevails in one part of Ireland; I do not know whether anything of the kind exists in Scotland. In the south of Ireland, particularly, there is a plant of the spurge family that grows in vast abundance upon the banks of the rivers; it is a most deadly poison to fish, and two or three bundles put into the river and confined with stones will poison every fish, even eels, which are so tenacious of life, for two or three miles. This plant exists on the rivers in Kerry, and the people were taught to do it by a monk who travelled through the country, and we were obliged in that case, and it has had a very good effect, to get additional penalties; we obtained, in one Act of Parliament, a heavy penalty upon any person found taking a poisoned fish out of the water, when it could be proved to the satisfaction of the magistrates; that has stopped the thing altogether, because they can only take them in the daylight; and when we suspected there was poisoning going on, it was only for the water-bailiffs and police to watch, and they could not take away their prey without being detected. I think the practice is totally stopped; but it was a most frightful thing.

2437. Is the effect of the spurge merely to make the fish drunk and come to the surface, or actually to kill it?

It kills the fish altogether; a great many are taken out of the water swimming about on the surface, not quite dead; if it is put in the water in the evening, the fish would be found dead in the morning.

2438. In fact a small quantity of this poisonous plant would destroy the fish in a large part of the river?

Perhaps three or four bundles which you could hold between your hands; the plant is bruised slightly so as to make it yield the poison.

2439. Is it a species of milky juice?

Yes; it is a large species of a weed that grows in gardens, and if you break it, stuff like milk comes out; it is a large species, and grows to a shrub.

2440. Earl *Ducie*.] Is not it known by the name of "daphne"?
Spurge we call it.

2441. Lord *Polwarth*.] Is it used for killing trout and salmon fry?
It kills everything; it kills even eels.

2442. Lord *Lovat*.] Are fish that are killed in that way unwholesome to eat?
I think not.

2443. Lord *Polwarth*.] Are the fish that are taken in that way sold in the country?

I do not know whether they are sold much; I think the inhabitants take them to eat themselves; I do not know that any trade was ever carried on by selling them.

2444. Lord *Stanley* of Alderley.] Is the mode of fishing by cross-lines prohibited under the Act of 1842?

It is not, and I wish it were.

2445. In clause 70, it seems that there is a provision against cross-line fishing:
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"It shall not be lawful for any person (save the proprietor of a several fishery, or any person duly authorised by him in writing, within the limits thereof), to take, catch, or fish for any salmon or trout, by means of cross lines in any river, and any person so offending shall forfeit and pay a sum not exceeding Five pounds"?

That adopts the general law; that, in the fresh waters in Ireland, by the common law of the land, is undisputed law; there is no controversy about it; the owner in fee of the land abutting upon the river, so far, is the owner of a several fishery in the river.

2446. Do you think it would be desirable to prohibit that mode of fishing?

I do, in rivers.

2447. Earl *Ducie*.] At present you have so far acknowledged its legality that you have a special license for cross-line fishing?

The owner of a several fishery, who is the owner in fee of the land on the river, has a perfect right to do it, and it is legal; but I do not think it ought to continue so in rivers.

2448. *Chairman*.] Is that right largely exercised?

Very, in some instances; I think it damages the angling greatly.

2449. Lord *Polwarth*.] Is cross-line fishing more deadly than a well cast line?

It is generally practised by men who do not try very much to be good single fishers; it is used when the waters are very high in spring; you can drag up many miles with these cross lines. Doubtless you will kill more salmon than with a single rod, but when the water gets low and clear the cross line is of no use at all; no fish will rise at it; it is worse than useless, because when these men find that one or two are killing with single lines, out go the cross lines, and they keep dragging over the fish in the low clear water till they prevent the fish rising at all.

2450. Lord *Stanley of Alderley*.] Is burning the water prohibited in Ireland?

Very strictly.

2451. Lord *Colville of Culross*.] With respect to the license system in Ireland. In Ireland, where every man is a sportsman, had you not very great difficulty in enforcing the license in the first instance?

No.

2452. What is the license?

The maximum license for a fishing rod is 1 *l.*; generally speaking, it is only 10 *s.* In the first instance we had the power of fixing anything under the maximum, and we universally fixed it for Ireland at 10 *s.*

2453. And no little boy can go to fish in Ireland without a license?

For trout; this only applies to salmon.

2454. What amount do you derive from the licensing system; are you at all aware?

Between 5,000 *l.* and 6,000 *l.* from all licenses.

2455. Lord *Polwarth*.] For licenses to take salmon in any way?

Yes.

2456. Lord *Colville of Culross*.] Have you any power to prevent salmon from getting into mill leads and sluices?

No, we have not.

2457. Is not that necessary?

It would be very advisable. We had provisions in the Bills which came before Parliament, but we were invariably defeated by the millers in Ireland upon all those occasions. Whenever the word "mill" was in a Bill they sent a deputation over, and watched and worried so that we never could succeed, though I feel confident myself that contrivances could be made that would be very useful, and not the slightest damage to the millers.

2458. Are a great many salmon, to your knowledge, killed by getting into the mill-wheels?

There are not a great many killed in that way, except in the Turbine-wheels.
I do

I do not think the ordinary mill-wheels (which are called "breast shot") kill the fish at all. I have put adult fish and fry into the buckets, and they have come out as nicely as possible; but the destruction is where there is a long tail-race to a mill, and the mill is drawing a great quantity of water; in low water, the fish all lead up to the mill, the miller shuts down his sluice, and the men can kill all the fish before they can retreat. If the miller and his men do not kill them, the poachers are on the watch. I think that is the greatest mischief. We have a very wise provision that goes to a great extent in correcting that evil; I am alluding to the law with reference to the ladders. When a ladder is put to a weir, the miller is compelled, under a heavy penalty, during the 24 consecutive Sabbath hours, to shut down all his sluices, and not to open one, by which the whole of the water of the river is driven over the weir, and, of course, the ladder is filled, and the fish can get up the ladder. We are sure of these 24 hours in the week, and, whenever there is a fresh in the river, or any surplus water, the ladder operates as well.

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2459. Duke of *Richmond*.] Is there anything to prohibit nets being drawn over the spawning beds?

No, there is not. I think our close season pretty nearly renders that unnecessary, for we have good long close seasons in Ireland.

2460. If you had not a long close season would not you think that drawing a net over the spawning bed is very prejudicial to the breed of salmon?

Some nets would do damage, but others would not do any damage.

2461. Lord *Polwarth*.] Are nets likely to be drawn over the spawning beds?

In many cases, the nets used in fresh water are so small and light that they would do no damage; some nets would, of course.

2462. Is it the habit to draw weir shot nets over these parts of the river where the salmon lie?

No.

2463. Are not the long weir shot nets used near the mouth of the river?

Quite so. I do not know a case in Ireland where the draft nets or weir shot nets are used near the spawning beds; practically, no damage is done in that way, inasmuch as they do not use them over the spawning beds.

2464. A trout net might be drawn over the spawning beds, but it is not likely that a salmon net would be used over the spawning beds?

We do not allow any trout nets.

2465. It is not at all likely that the spawning beds would be much injured by the use of the weir shot net?

I think not; my colleague and myself have advocated, in our reports to Parliament, that the most material benefit would accrue to both countries, if netting were to be prohibited altogether in fresh water.

2466. During certain seasons?

At all seasons; I would never allow a net to be drawn, if my advice were taken, in fresh water.

2467. How would you prevent people that have trout fisheries, or any other fisheries, drawing nets when they wished to take the fish?

Netting for salmon in Ireland, in fresh water, is an exceedingly small thing at present, and my opinion, so far as salmon are concerned is, that the fresh water ought to be used as a nursery for the fish; it is very limited at present, and I think that the few parties who do net, if money were their object, would be fully compensated by the rents they would get for angling, and by that means, I think, the nurseries for our salmon would be immensely improved.

2468. Duke of *Richmond*.] How would the public markets be supplied with a constant and regular supply of salmon by rod fishing?

I think the tidal fishings would supply the markets fully with the fish taken in the tide-ways; I only refer to the fresh water above where the tide flows.

2469. Lord *Polwarth*.] According to your view, you would seem to sacrifice
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everything for the sake of the salmon, and not to take into account the property and feeling which people may have with respect to other fresh water fisheries?

I think that might be regulated.

2470. You would propose that no person should have the power of using a net to take a dish of trout out of his own stream?

I do not say that. I say that salmon ought not be taken by net out of fresh water.

2471. You would not prohibit the proprietor of a trout stream, or the owner of ponds made for the purpose of pike and carp, from taking their fish out with a net?

Certainly not; we have some very valuable fisheries for the public of that description; there are fisheries for perch, and all those fish; I only apply the restriction to salmon.

2472. If you were to prohibit the use of nets in fresh water, would not you prohibit those parties from taking their fish out by means of nets?

I would only prohibit the use of nets for the capture of salmon in salmon waters.

2473. Lord Colville of Culross.] Are you aware that salmon, in some fresh waters, are taken to the amount of 10,000 l. or 12,000 l. a year?

I am not aware of that.

2474. Lord Polwarth.] Are not you aware, generally, of the value of salmon taken in the river Tweed in the fresh water?

Yes; but I think it is a very small thing compared to the tidal fishings.

2475. Lord Stanley of Alderley.] Have the Commissioners the power of making bye-laws?

Yes.

2476. To what extent do those bye-laws go; what regulations may you introduce under them?

We make regulations with respect to salmon fisheries, and deep-sea fisheries; we make bye-laws, as you will see by the list of our bye-laws that I have put in, for the instruction of the coast guard, police, and water-bailiffs. We made a bye-law in the river Slaney to prevent the use of nets in the close salmon season for taking any sort of fish, when it was shown to us that people, on the pretence of taking a small quantity of herrings, shad, or some of those things, were really taking salmon. We made a bye-law to prohibit the use of all nets for the capture of any fish during the close season; and we made a bye-law on the Shannon to prevent, after the first of July, the use of large sweeping nets at a certain point where we thought it was injurious.

2477. Do you regulate the different close times for different rivers by bye-laws?

It is not a bye-law; it is a regulation of our own. In making a bye-law we must have it confirmed and ratified by the Privy Council, but in regulating the season we are arbitrary. There is that difference.

2478. Earl Ducie.] Has not the tendency of recent legislation with regard to the Irish fisheries been rather to vest large discretionary powers in the Fishery Commissioners?

It has; I think a necessity in Ireland has arisen and exists from the nature of our fisheries, so much public open fishing being mixed up with it. The Irish fishings are very different from the Scotch fishings in that way; whereas all Scotch fishings are private property; private rights in Irish fishings are only the exception. In by far the greater bulk of our waters, the public common law right of every person prevails who can get a boat and a net.

2479. Lord Stanley of Alderley.] We have gone through the provisions of the Act of 1842. Have there been any alterations in the five Acts which have been passed since 1842, which you now propose to consolidate by the new Bill to be introduced for that purpose?

There is nothing new in principle; there are a variety of amendments with respect to language, perhaps they are more technical than otherwise; nothing further

further than carrying out what the clear intention of the original Act was ; but I think it very likely, when the Bill goes into Committee in Parliament next Session, that several things will be proposed.

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2480. Have you any suggestion to make which you think it would be desirable to introduce into the new Bill beyond the mere consolidation of the Acts for Irish fisheries.

There are some.

2481. Will you state them to the Committee?

One thing I should be very much disposed to propose, is, that cross-line fishing should be stopped in rivers, not in lakes ; and I should also be very much disposed to propose what I have said, that netting for salmon should be prohibited in fresh water (I would like to be distinctly understood in that) except in such a case as that of the Duke of Richmond, in the Spey ; if any such exist in Ireland, where anything of a commercial value in any exclusive fishery is really available for a mile or two, whatever the distance might be ; but I would put an end to netting for salmon very high up the rivers, for we find now, in Ireland, that those rivers are improving most where the parties have never, as long as I can remember, thought of using a net. But higher up in the river, where the parties have found the salmon improving (where they never took any trouble) from the care and expense of others who have subscribed largely in addition to the license duties ; we find now the nets multiplying.

2482. Do you think the quantity of salmon taken of late years in Ireland has very much increased ?

It has very much increased since we got the Assessment Act, that brought the provisions of our law into life.

2483. To what do you attribute that increase ?

I think the increase of our fisheries in Ireland has proceeded first and mainly from bringing within the limits of the law pretty nearly all the fixed engines in the tideway, next from providing funds for protection. And a very important thing has been the aid of the constabulary ; they are very zealous, and the inspector general is exceedingly cordial in co-operating with us in every way. I think the increase is very much due to the amount of protection obtained through the funds obtained from the license duties, and the constabulary, with the restrictions enforced in some places pretty nearly as the law directs, upon all fixed engines in the tideway. We have been applied to in the Waterford estuary, where the fisheries have improved exceedingly, because several parties have attempted to re-erect those illegal stake weirs, and we are called upon to go and see after them ; and also in the Blackwater.

2484. Why have you not enforced the law in these cases, and put down the fixed engines which people have attempted to re-erect, contrary to law ?

We have not neglected to do so at all in the Waterford estuary. From time to time we have acted under the power given to us, and prostrated a great many weirs in a summary way. We have power to prostrate weirs in a summary way where a weir has been re-erected on the same site after conviction before any of the courts. We have also the power, if a new weir is attempted to be set up that has not been convicted, to hold an inquiry and institute proceedings, and that is what we are engaged in now in the Waterford estuary ; and we are also called on in the Blackwater River, in the county of Waterford, where there is a great number of weirs, and very illegal weirs. We have been placed there in a curious position ; these weirs are illegal, I believe, very many of them as regards the navigation ; and the Admiralty are the great authorities in that case. In 1849, I think it was, the Admiralty were called upon to send their officer, Captain Fraser, to report upon these weirs in the Blackwater, and he reported that they ought to be removed as nuisances to the navigation. We have not been disposed to act where we thought the Admiralty ought to do it. I will hand in Captain Fraser's report, which is a public document (*handing in the same*). We must go down and see about it, but I should hope the Admiralty will act upon the Report of their own officer.

2485. Have not you the power, and do not you consider it the duty of the commissioners, to direct the destruction of any new fixed engine or weir which may be erected on any of the coasts of Ireland ?

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We cannot direct its destruction if it has not been convicted before some tribunal; we cannot resort to the summary process unless a conviction has been had; where a new thing has been put up we must prosecute or order it to be prosecuted through the ordinary tribunals of the country first.

2486. Would it not be your duty to file an information, and to obtain a conviction against all parties who are erecting these fixed engines?

Quite so; we have power to hold an inquiry, to take evidence and give judgment.

2487. Why do not you do it in the case of new engines being established?

It is being done; it is only recently that they have commenced their weirs in the Waterford estuary; immediately upon the complaint being made we have acted upon it; we have first sent down an inspector to get a list, in detail, of where these weirs are erected.

2488. Do you consider it of great importance to the preservation of salmon fisheries in Ireland to prevent the new erection of any of these stake nets or other engines?

Certainly; I believe it was a very injurious thing to the fisheries originally legalising them, and I am satisfied that it would be very fatal to allow them to return to what they were before, and not strictly to keep them to the limits which the law at present provides.

2489. Do you attribute the improvement of the salmon fisheries principally to the abatement of the nuisance by putting down these fixed engines upon the coast of Ireland?

In many places altogether; some of our estuaries were so crowded with stake weirs that the salmon fishery must have been annihilated if they were not stopped; they became very nearly annihilated, and they must have been totally if those weirs had remained.

2490. Earl *Ducie*.] You have spoken of a general improvement of the salmon fisheries in Ireland; are there not some districts in which there has been a deterioration?

There are some districts in which the improvement is not so great. I have before me our last report for 1858; the one for 1859 is not yet finished; and these are some of the answers to queries from the different Boards of Conservators; and, independently of these answers, we know of our own knowledge that they are correct. It begins at Dublin; "improving." "The fisheries appear to be in a good state at present, the bag net fishery increased, but the seine net and rod fishing decreased; but there is a good prospect of improvement." "Improving, and a good prospect." "There is a general improvement in this district, and it is expected that in consequence of the extension of the open season at one period of the year, and the extension of the close season at another, the fisheries will be improved." "Much improved, and prospects good." "Rather less." "No change in the salmon fisheries; much as usual." "The salmon fisheries improved, and good appearance." "The salmon fisheries are, and have been, in the most prosperous state; they have improved, and are likely to improve." "The fisheries in a very satisfactory state, and the prospects very good." "An improvement expected in the bag net fishing, on account of the protection rendered during the close season in the inland rivers." "An average take with bag nets, but in all other fishing there was a decrease." This is a district where stake nets for the first time have been set up outside, but beyond the limits that our law has fixed; and immediately they were set up the inner fishings felt it very sensibly, of course.

2491. There are two instances less satisfactory than the others, can you trace the cause of the inferiority of those fisheries?

In some of those places there is a want of care; some of them are small places, and in some instances the Boards of Conservators are very negligent; some of the Boards of Conservators are much more active than others; a great deal depends upon the inspectors who are appointed; we have some exceedingly active inspectors of fisheries, and we have some very negligent, worthless men appointed under the Boards of Conservators.

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2492. A great deal of the efficiency of your system must depend upon the efficiency of the persons who carry it out?

Yes.

2493. And of course a great deal will depend upon the amount of co-operation which the local proprietors and lessees will give?

Quite so.

2494. *Chairman.*] I believe you have stated that you are generally acquainted with the provisions of the law of Scotland?

So far as the provisions of the law go.

2495. Do you know, as the provisions of Magna Charta did not extend to Scotland, that the Crown still possesses, *jura coronæ*, the salmon fishings, and that no private person can exercise the right of salmon fishing without a grant from the Crown?

Yes, I am quite aware of that.

2496. And you are aware that the Crown has exercised that power largely, and that many persons have received grants of that description?

Yes.

2497. Looking then to the difference of the circumstances between the state of salmon fishing in Scotland and in Ireland, do you conceive that the main provisions of the Irish law would be applicable to Scotland?

I do. I think the main provisions would; but with respect to the use of fixed engines, bag nets and stake nets, I certainly think that, for the good of the country, the restrictions ought to be greater in Scotland, and they ought to be greater in Ireland. I think there was a great mistake in the Act of 1842 in sanctioning fixtures in the tideways as far as it went; but in Scotland, from the evidence I heard on the Tweed Bill and the Ness and Beaully Bill, I do believe that the material injury to the Scotch fishings, is over-fishing through fixed engines.

2498. Are you now speaking chiefly of the sea coast, or of fixed engines in estuaries?

I am speaking very much of both. I think it was an unfortunate thing for the salmon fisheries in both countries when stake nets and bag nets were first invented, which was a recent thing. I think there is something exceedingly injurious in placing those fixtures, which remain day and night, in the tracks and pathways of the fish. In Ireland we had a great deal of discussion, and the Act which was passed in 1842 was a sort of compromise. We took that Act sooner than not get any Act at all; but my opinion at the time was, that for the benefit of the country it should have been abandoned altogether, rather than sanction stake weirs and bag nets so far as they are sanctioned. There was a great deal said in Ireland about the effect of stake weirs and bag nets being to rescue salmon from the seals and things of that kind. I believe that they have tended to cause much more salmon to be devoured by seals than ever were before in Ireland. I have watched it very closely myself. We find where a bag net is established, at first the seals will break into it, but after a bit, being very sagacious animals, they will lurk about it; and in calm fine weather the fish coming into the rivers and estuaries are frightened; the seals plunge into them, and they are driven into the sea, and a great many fall a prey to the seals. We have many establishments that I have watched myself where the bag nets will turn away the fish. Now there is the case of the River Slaney, which is the worst in Ireland in its circumstances, and the least improving; there are a parcel of bag nets crowded about the mouth that are still outside the mile. It is not at all uncommon in that river that the owner of those bag nets will not set them in fine or calm weather for three weeks together, having found by experience that the nets drive the salmon away altogether. He will wait till a storm or swell gets up, and consequently his property in the fishing is diminished as well as the river fishings. There are many other cases in Ireland where I think the restriction put upon fixed engines is not at all enough, and that they are still a great impediment to the further development of our fisheries.

2499. Looking at the decisions which have been pronounced as to the present state of the law, to the magnitude of the interests involved in the stake and bag
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net fishery, the number of persons employed in it, and to other circumstances, do you think it would be practicable utterly to prohibit the use of those engines?

I should not like to offer an opinion as to whether perhaps large sacrifices should be made; I do not know exactly how the case stands in Scotland with respect to property in them; therefore I would rather be excused from giving an opinion; but I am very confident in the opinion that for the benefit of the country, for the protection of the salmon in the country, and for the development of its resources in that way, it would have been far better if the stake and bag nets never had been allowed anywhere.

2500. You think the effect of such a prohibition would not be a mere transfer of property from one set of proprietors of fisheries to another set?

To a certain extent. There are some positions; and in any positions, particularly with regard to bag nets, where no other engines could be employed in catching salmon. On the other hand, there are many positions in estuaries where salmon could be taken by the net and coble, that are now occupied by stake weirs and a good many bag nets. If salmon could not be taken by any other means, then I should not like to be pressed to say how far I thought individuals having possessed those rights for some time should be sacrificed.

2501. Do you think that the stake and bag nets secure to the public a larger and more regular supply of superior fish than could be obtained if they were not used?

No, I think not; I think if there never had been stake and bag nets that a larger supply would be yielded, and quite as regular a supply, if the fish were allowed to come in and be taken in the estuaries; I am quite of opinion that it does not increase it, though for a while it may; my decided opinion is that the operation of these nets is to keep the salmon so much out to sea that a larger and a more steady supply would be obtained for the public if they were altogether done away with.

2502. Lord Stanley of Alderley.] Can you state any instances that have come to your knowledge where the fishings have been very much injured by stake nets that have, since their removal, improved?

Yes; in the Suir, the Nore and the Barrow, the fishings were nearly destroyed altogether before the bag nets were limited. They were nearly fished out, and hundreds and hundreds of people were thrown out of employment. People up the river got, I recollect, no such thing for several years as a new salmon. Then the people would rise and put down the bag nets for a while by violence; this went on for a series of years, and the fisheries would recover to a certain extent; then the stake and bag net people would get them up again; but we had no steady or progressive improvement at all until, under the Act of 1842, the stake and bag nets were limited in the way I have described.

2503. Can you inform the Committee of the state of the fishery in that river since the regulations as to stake and bag nets have been in force?

Yes; in very many ways it is improved. The people above have fair fishing; the centre people have fair fishing; and the bag and stake net fishing, which the law allows outside the mouth of the river, in a place wider than three-quarters of a mile, are fishing in both places, but their property now is greatly improved. It is larger than it was when the narrower part of the river was crowded with nets; and the lower orders, who fish with their cott nets, have been greatly revived, and have returned to their employment and catch an immense quantity of fish.

2504. This fishery, which you say was nearly annihilated, since the bag nets have been regulated has been restored to a state of prosperity, and both the sea fishers and the river fishers have equally benefited?

Quite so; it has been restored to a state of comparative prosperity. So sensible of the benefit are the persons who have stake nets in the wider portions that they contribute beyond their license duties to a private association that has been got up on the upper waters. My Lord Templemore, this last year, sent up 20 £. to the association, in addition to the duty that he pays upon his stake nets.

2505. To what extent do you attribute the improvement in those fishings to the regulation of the bag nets, and what proportion to the better preservation of the river, and to the employment of water bailiffs in the upper parts of the river?

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The protection of the salmon was due to the removal of the bag and stake nets in the narrow part of the estuary. No gentleman would have subscribed above, and nothing would have been done; as soon as it was done the people above took an interest, because they hoped to have some benefit, and that has been realized. They have been greatly aided in the protection of the fish by the constabulary; but the foundation of the whole thing was clearing the estuary in the narrow part of the stake nets. It was impossible, otherwise, from my own experience, and I have watched that river since I was a boy, in that particular.

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2506. Lord *Polwarth*.] Do you think that a Fishery Board similar to the Irish Fishery Board could be constituted for Scotland?

I do not know. In Scotland, so far as I can offer an opinion upon it, I cannot see that there would be the same necessity for a Board with all the functions that we possess, inasmuch as there, I may say, the private fishers would be more capable of governing themselves. I think it would be impossible for the parties in Ireland to govern themselves; I know it would, from the vast numbers of the lower classes, and the antagonistic interests among that description of people.

2507. *Chairman*.] The right of salmon fisheries in Ireland being public?

Yes, to a great extent; therefore, I should say, if my opinion is worth anything upon the question, that the proprietors of fishings in Scotland ought to be able to govern themselves. I think there is one point upon which they might want aid in the way of some medium of arbitration, if changes should appear necessary in the close season; because, I think, it is a very cruel thing to oblige parties to come before Parliament, at a very great expense, to obtain an Act merely to change the close season.

2508. Duke of *Richmond*.] What is the constitution of the Fishery Board in Ireland?

The Board of Public Works are Commissioners, and there are added to the Board of Public Works two Inspecting Commissioners, one of which I am; we sit with the Board of Works as Fishery Commissioners, equally with them, but we do not interfere in the other matters of the Board of Works; as a Fishery Board there are three members of the Board of Works.

2509. Is the salary of the Commissioners of Fisheries paid the same as the Board of Works, and not paid out of the assessment?

I am sorry to say that the Inspecting Commissioners are not paid quite so much as those who are members of the Board of Public Works and Fisheries; we are paid by the State.

2510. You are not paid out of assessment?

No, there is no deduction whatever from the assessment upon engines, or rates of that kind; that is all applied by the Boards of Conservators for protection; we are paid by the State; there is no deduction for our travelling expenses, or any thing that we do in the prostration of weirs, or any other expenses that we incur from the funds for the protection of the salmon.

2511. Viscount *Hutchinson*.] Have you, in addition to your duties as Commissioners of the Inland Fisheries, also general supervision of the deep-sea fisheries and oyster fisheries, which are termed public fisheries?

Yes, we have the duties of both devolving upon us; we make a number of bye-laws and regulations with regard to the sea fisheries.

2512. Duke of *Richmond*.] What is the duty of the two Inspecting Commissioners of Fisheries, so far as the salmon fishings are concerned?

In the first place, all applications to change close seasons are made to them; whenever a complaint is made that a cruive weir is wrong, and not agreeable to the law, we take cognizance of it, and go and inspect it, and see into its construction.

2513. Do you go yourself, or send some other officer?

We go ourselves. Whenever an application is made for ladders over mill weirs, the power is vested in us to do it, and we cannot resist it. Then we make bye-laws to prohibit the use of nets, as we did in the Slaney, as I stated just now, when parties in the close season for salmon, on pretence of killing small quantities of white fish, were really killing salmon; we made a bye-law, and prevented that. We made a bye-law on the Shannon lately to prevent the use of sweep nets in the

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month of July, because they took an undue quantity of grilse that ought to have been spared. We made a bye-law in the south of Ireland and other parts, to prevent the use of nets with a sole rope; that was also used under the pretence of taking herrings, but really in taking salmon. On inquiry, finding that they were ostensibly taking herrings, but really poaching for salmon, we made a bye-law to prevent the use of these nets.

2514. Do you and your colleague divide the country, or take your chance of the districts that you go to?

The country is not absolutely divided, but it is understood that the north-west is managed by me, and the south by Mr. Barry; we depart from that arrangement, because there are occasions that we go together on important cases.

2515. Supposing you two gentlemen disagree, how do you arrive at a settlement; it is perfectly possible that you may have one opinion and your colleague another?

We sit in a Board with three members of the Board of Works; then there is a Board of five; the majority, of course, determines any question.

2516. They hear you and decide the matter?

Yes.

2517. Although they know nothing about fishing?

I think they must have picked up a good deal through us.

2518. Lord *Polwarth*.] Who prosecutes under these bye-laws that you make; at whose instance is the prosecution carried on?

When we make a bye-law and it has obtained the sanction of the Privy Council, it becomes the law of the land; the police prosecute; the water bailiffs prosecute, or any one prosecutes who is interested.

2519. Whose duty becomes it to prosecute in the event of the contravention of the bye-laws with respect to the salmon fisheries?

The coast guard or the water bailiffs, under the Board of Conservators.

2520. Who pays for that prosecution?

If we direct a prosecution by the coast guard or the constabulary we pay all the expenses.

2521. You have the power of directing a prosecution?

Yes, we have the power of directing a prosecution by the coast guard and the constabulary, and we invariably pay the expenses.

2522. The private parties who may be aggrieved have power of prosecuting under your bye-laws?

Yes; any person whatever can prosecute.

2523. Duke of *Richmond*.] If a gentleman has a salmon fishery in Ireland, and the coast guard or the police find that there is black fishing or any other illegal transaction going on, is that reported to you, and do you prosecute?

We direct them to prosecute.

2524. Lord *Lovat*.] Is each district assessed by itself?

Yes; under the Assessment Act we have divided Ireland into 22 districts by the seaboard; we took a point from such a headland to some other point, and marked it upon the map, and included the seaboard and all the waters flowing in between those points; that forms a district; we divided it then into tidal and fresh water electoral divisions, and we appointed, under the Act, a certain number of persons to be elected to represent the tidal waters, and a certain number to be elected to represent the fresh waters, and we took care to do that in such a way that equal numbers should form a Board, representing the upper waters and the tidal waters; every three years there is an election, and the parties paying license duties in one electoral division, just like our poor-law elections, are entitled to vote for the conservators.

2525. Lord *Stanley* of Alderley.] How are the funds obtained by license duties and assessment disposed of; are they paid into one fund, or are the funds raised in each district applied to the expenses of that district?

In each particular district where these funds are collected, they are lodged in the bank of the Board of Conservators, and at their meetings they are drawn out by cheques,

cheques, signed by the chairman and two other members ; they do all their business themselves, and the system is working remarkably well.

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2526. Lord *Polwarth*.] All the members of the Board are elected in a district ?
Yes.

2527. The number for each district being settled by you ?
Yes.

2528. What may be the qualification of a voter ?
His license to fish.

2529. Do you mean that every person who takes out a ten shilling license to fish for salmon with a rod and line has a vote in the election of conservators ?
He has.

2530. His license, I apprehend, is confined to that district ?
He can only vote in that district.

2531. Can he fish in another district ?
He can fish with a single rod all over Ireland. Those that pay higher rates for cruive weirs, stake weirs and bag nets have cumulative votes.

2532. To what amount do these cumulative votes go ?
Up to five or six, beyond that they are limited.

2533. *Chairman*.] I think you say that it would be desirable for the interests of salmon fisheries generally, in Ireland, that stake nets and bag nets should be abolished, is it your opinion that cruive weirs should also be abolished ?

No, I do not think that could be done ; they are the most ancient fishings that we have under charters from the Crown in Ireland ; many are charters of the weir itself. With respect to the Lax weir in Limerick, for which 10,000 *l.* was given the other day, subject to 300 *l.* a year, to do away with that weir would be an utter spoliation of a large property.

2534. If grants have been made of *seacoast fisheries*, can you justly and fairly restrict the modes in which persons may use the rights so conferred upon them ?

I think so because an engine can be used on the coast that cannot be used in the position that these weirs are in. I think myself if there were a proper free passage or Queen's gap put in the cruive weir, it would be sufficient on the principle that they were required when we were not trammelled by that old saving clause, which I say was not right. In other weirs we have a tenth part of the river, in the deepest part of the river, in the middle, free, and we have the most stringent law : no one can put a spur weir to his cruive longer than 20 feet ; but if they put those spur weirs, they might contrive them so that the fish would be kept away from the Queen's Shore. There are several weirs in Ireland (I can only speak as to Ireland) where it would not be at all justifiable to do away with the weir, as the weir is a thing granted by charter. In many places there is not a grant of sufficient space of water, exclusive of the weir for a fishery, so that you would deprive them of their property altogether in some places in Ireland.

2535. As grants have been made of the coast for the purpose of fishing, where the net and coble could not be used, would you not, by prohibiting the use of stake and bag nets, practically deprive those grantees of the power of fishing at all ?

I think not, for this reason : when those grants were made by the Crown, on the coast there were no such things as stake and bag nets known ; of course the Crown never granted, except under a positive understanding that there was no such engine which could be used ; and if they were worth accepting from the Crown at that time without the use of stake weirs and bag nets, I do not see why they could not fish them now as they did then ; for, I believe, in Scotland as well as in Ireland it is not above 40 years since such engines were known ; but in Ireland, in some cases, the only thing granted was the cruive weir ; there was no such thing as a grant from the Crown to use a stake weir or a bag net.

2536. Earl *Cawdor*.] In the evidence that I have before me, which was given in the House of Commons in 1836, it is stated, that fixed engines or stake nets were erected in Scotland as early as the 15th century, are you aware of that ?

I was not aware of that. We have a description of a stake weir in Ireland, I
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believe, as old as that, which I will describe. Lord Templemore established his right to one of these things; the law prostrated the thing that he substituted for it, it was what we call a Scotch weir. It was a grant originally made by the Crown to the monks of Dunbrodie Abbey, and it descended to him; it is what is called a timber-tide weir; it is made in the shape of a letter V; it is a very in-operative thing compared to a stake weir; a man sits on a stage with a long purse net and a parcel of strings; he looks exactly like a person driving four-in-hand; when a salmon creeps in he feels him strike; he then pulls up the net on to the stage, and takes out the salmon; it is, after all, a stake weir, and is one of the most ancient things in Ireland; recently, in the trial at law, Lord Templemore proved that the monks of Dunbrodie had a grant of this timber-tide weir at this spot, and, being given to the monks, it was called God's weir, and he was allowed to fall back upon God's weir; but I had the disagreeable duty of prostrating his Scotch weir.

Adjourned till To-morrow, at Half-past One o'clock.

Die Sabbati, 16° Junii 1860.

LORDS PRESENT:

LORD STEWARD.
 Earl CAWDOR.
 Earl DUCIE.

Viscount HUTCHINSON.
 Lord POLWARTH.
 Lord LOVAT.

THE LORD STEWARD in the Chair.

WILLIAM JOSHUA FFENNELL, Esquire, is called in, and further examined.

Evidence on the
 Salmon Fisheries
 (Scotland).

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2537. Lord *Polwarth*.] CAN you give the Committee any information with respect to the nature of the breeding grounds of the salmon, and the habits of the fish in those breeding grounds, and also what modes of fishing tend to injure or destroy the breeding grounds, and the spawn on those grounds?

In the first place the salmon enter all the rivers at various times; salmon intending to spawn in some rivers enter them as early as the latter end of November and in December; some few salmon, a small proportion, are in as good season then as at any other season of the year.

2538. The ova not being fully developed?

It is fully developed in the animal, but has not grown large.

2539. Not ripe?

Not ripe. We have instances of rivers in Ireland where remarkably good salmon, in as fine a condition for the market as can be, have come in limited quantities at the end of November, in December, and January; those rivers are very few, but we have some of them. I heard upon the Tweed Committee and the Ness Committee some few rivers described as similar by persons acquainted with them in Scotland: the salmon continue ascending the rivers all through the year, December, January, February, March, April, May, and June; in fine, the whole year; still the spawning operations are limited very much within four months. Spawning commences in some rivers, and under some circumstances, late in October, and some spawning in November; but the great bulk of spawning in all rivers occurs in December and January. I have looked carefully over the evidence on the Scotch rivers in 1825, and I find that the spawning season in Scotland corresponds exactly with the seasons in Ireland; they are quite identical; we have these exceptions in Ireland, which are called early rivers, just as they have in Scotland. But if you allow those rivers that have a few early salmon in them for December and January to be fished, it would in my mind be a most destructive thing to the country generally, and I do not think there would be anything to justify it, as it would involve the destruction of a great many unspawned fish; I do not think there would be anything to justify it upon the principle that for a very few fish, for they are few in a very few rivers, a general law should be passed to enable those few parties for those few fish to obtain a very high price, while in doing so it would sacrifice a great many fish that ought not to be killed; I think it is not good economy to allow a small thing in the way of luxury because it will bring to a few persons an enormous price, to the detriment of the fisheries. In Ireland we have allowed in a few of those early rivers' fishing to commence in January, in some of the rivers in Kerry, and in one river in Donegal, but it is found not to work at all well, because even in January it is only one person, it may be said, upon most of those

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rivers

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rivers who can take out a good fish without doing mischief; where he has a cruive weir just at the junction of the tide and fresh water, that man, if he is honest, at that cruive can easily let out the fish that are not good, and keep the few good ones, and they bring an enormous price. But if you go in many instances a quarter of a mile above that, or less, you will find a multitude of salmon in the same river in the act of spawning. Though we were very much pressed for it in these rivers of Kerry, and they have opened in January, it is found that many persons who advocated it at the time now begin to think that it ought to be changed; there is such a sacrifice of unspawned fish, and there are great temptations now to abuse that privilege of early fishing that did not exist some time ago; the inducements have greatly increased. There are a great many people now who make up salmon in tin cases for the navy and for hot countries; they do not care much what sort of salmon they get; it is mashed up and disguised, and a bad salmon answers their purpose almost as well as a good one; and also the opening of the sale of salmon in France; the last two years the French took the duty off salmon; they allow our salmon to go into Paris, and the French are not very particular at all; that has opened another source for the disposal of bad salmon; that is working very badly. Now, to illustrate to your Lordships what goes on in that way, on the 26th of last February I had a meeting in Waterford with regard to changing the season; it had been discovered that a great many spent fish, kelts as they are called in Scotland, and some unspawned fish, had been purchased by a broker; the police had seized them, and the man was under his examination on his oath; he told very honestly all that occurred. I asked him what he gave for this bad fish; he said from 3 *d.* to 5 *d.* per lb. I asked him what he got for them; he said he got 10 *d.*, as much as a few years ago he would have got at that season of the year for the very best salmon. I asked him upon what unfortunate people he inflicted the eating of this bad salmon; he said, "I sent them over to John Bull, and he thought them damned good." I was on my way to London, summoned here to be examined on the Ness Bill, and I went down to Billingsgate, which I often do, to speak to a broker there, and I mentioned the thing to one of the principal men, Mr. Stewart, of the firm of Stewart and Ridpath; he got good fish from that identical man, and he knew all about these other fish that I am speaking of; they came over here consigned to a man in Billingsgate. Mr. Stewart would not have them; it was not John Bull who had them, for they were sent direct to Paris; so that the opening of that market is a great inducement to abuse the privilege of allowing early fishing to catch a few fish, inasmuch as the people can get such a price as 10 *d.* a lb. for those bad fish. It is a great temptation to indiscriminately kill all that they can get. I think I heard some Scotchmen advocate on the Ness Bill the opening of the Ness and Beaully on the 10th of December, which I thought the most monstrous thing that could be propounded, as a general rule, for Scotland or for any other country.

2540. Those fish that come up in good condition are fish with spawn in them, but not developed?

Quite so; they would spawn in 12 months.

2541. Do you not think that the penalty upon the taking of kelts or baguts, where the fishing is allowed in some parts of Scotland, and killing them, is sufficient to prevent their being destroyed by fishermen?

Not at all. I think, unless you fence the months that are the greatest spawning months, you do a very dangerous thing. Now December and January in both countries are the greatest spawning months in the year; the bulk of the fish spawn in those two months.

2542. You are aware that the Tweed Act contains permission to take the good fish, with an obligation to return all the bad fish into the river?

Yes.

2543. Are you at all aware how that has worked?

No.

2544. You do not know that the bad fish have been retained in some instances, and sent secretly to the London market?

I have heard it; but the Tweed does not open until late, and a much larger proportion of good fish is to be had than could be had anywhere else in December and January.

2545. Notwithstanding

2545. Notwithstanding that, they have kept a good many of the bad fish ?

No doubt and always will : if the season is open when there is a great quantity of unspawned and kelt fish, I defy police, water-bailiff or any other person to prevent great mischief being done.

W. J. Efennell,
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2546. The fishermen will, in your opinion, where the temptation is so great, consign those fish to distant markets and obtain a high price for them ?

Certainly, the opening of the French markets has increased the thing greatly.

2547. It has increased the temptation so much that it is hardly to be resisted by that class of men ?

Yes, it causes a great price to be obtained, just as in February last in Ireland 10 d. a lb. was obtained for those fish to go to Paris, whereas a few years ago that would have been the price of the very best fish at that season ; it was a price given by a broker to make money by ; it would have been a good price 25 years ago for the best fish. But there is such a small proportion of the fish good in December and January that I think it is exceedingly bad policy to permit fishing at all ; even if salmon are taken in a cruive, if the water is strong a fish heavy with ova will suffer greatly before it is taken, or suppose two or three good fish get into a cruive and a dozen bad ones, the person having that weir may only kill the two good ones, but the others, if the water happens to be strong or there is anything like a spaight, as it is called in Scotland, or a flood, will be greatly damaged by lying for some hours in the cruive. I question whether they will not be destroyed though they may be enlarged not quite dead. Hauling in these heavy fish just near spawning for the sake of catching a few good ones in a common coble net must be extremely injurious to them.

2548. Lord *Lovat*.] Is there any penalty in Ireland against killing these bad fish in the season ?

Yes, there is a penalty for killing foul fish in the open season.

2549. Viscount *Hutchinson*.] Can that penalty in point of practice be said to be operative ?

It is not operative generally ; some seasons there are a great many kelts taken in February ; last season there was an unusual number ; the seasons vary ; but, however, the killing of kelts is not at all to be considered in comparison with the killing of the autumn and winter fish, the bagots ; for the kelts have done their office ; they have sown their seed ; the only loss in the kelt is its weight, and difference in condition, which is a small thing, between what it would be worth then and what it would be worth if it were to go to sea and come again ; it has done its office in the way of replenishing the water.

2550. Do you not think that it would be a very useful thing to prohibit the use of gaffs in the early part of the open season for the purpose of diminishing as far as possible the number of spent fish killed ?

I do ; I think that it would be advisable to abolish gaffs altogether ; I do not think it is of any use abolishing them in the late part of the season ; it is of use in the early part, but there is something contradictory in not allowing the gaff in the early part of the season when it is required, because the fish are larger and heavier ; and then allowing the gaff when the grilse and small salmon are running when the landing net would do so easily ; therefore I would not hesitate to recommend that the gaff should be altogether prohibited, for I think though it would not be so handy, and no doubt in some cases some heavy fish would be lost by using the landing net ; yet after a bit people would get to use it handy enough.

2551. *Chairman*.] Do you know how many years salmon continue to live and continue to increase in size ?

It is supposed that they would live to a great age if they were allowed.

2552. Would they continue to increase in size ?

I believe so. I apprehend that all the monster fish are old fish ; the general opinion is that they are fish that have run the gauntlet several years and have escaped.

2553. Lord *Polwarth*.] Do they continue breeding ?

Yes, I think so.

2554. Is the ova as fully developed in the large fish as in grilse ?

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Yes ;

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Yes; I have seen instances of large fish where the ova has been very fully developed.

2555. Lord *Lovat*.] Do the early spawned fish return to the sea and come again?

Yes, sooner of course than the late fish. With respect to the spawning operations, it appears at first strange that some fish should seek to make the fresh water their habitation for the whole of the summer, while other fish remain in the estuaries and the sea until within a few weeks of spawning, and come out of the sea quite ready to spawn. It presents itself to my mind as one of the wonderful arrangements of nature, that it is for the purpose of causing the fish to distribute themselves through the whole of the waters; that is their tendency, for we have the fish in summer from the spring going up the rivers, and killing themselves to get over obstacles, actually jumping at weirs and locks, and all sorts of things, while a number of fish remain quiet in the sea, and do not come into the fresh water at all till they are just ready to spawn. We find also that the earliest spawning is almost at the top of the water. I think it is as clear as possible, that the object of the law that governs them, is to cause the fish to distribute themselves throughout the whole length and breadth of the water. Some people have thought it extraordinary that there should be these December and January fish; we have it before our eyes; I have often taken them myself in the lakes in the following summer in all stages of ova in progress of development. We have them under our eyes in rivers, the fish come up in February and March, and we know that they do not spawn till November and December, following, after all very much the same time before spawning as the December fish that spawn in October; it is about the same time.

2556. Lord *Polwarth*.] You think that the fish enter the river in December, and remain in the river till October, and then spawn?

Yes, no doubt of it, they are the most valuable spawners.

2557. Viscount *Hutchinson*.] It has been stated to the Committee as the opinion of one of the witnesses who have been examined, that those earlier fish in the Scotch rivers are barren fish; you do not coincide in that opinion?

I can answer for it in Ireland that they are not barren fish. I have tried many experiments about it. Before we allowed January fishing in the Carra, my colleague, Mr. Barry, and I went down, and we caused the cruives to be put down in the River Carra, which is one of the earliest rivers. We assembled the Board of Conservators, the fish brokers, and all the people interested in the river. We had the cruives put down at night, on the 23d of November, and in the morning we had 17 salmon. Fifteen of those salmon were as beautiful, marketable fish as could be; there were only two bagots in them. We opened every single fish. We had a post mortem examination on the spot before all these people, and every one of those that were female fish (they were about in equal proportion,) had the ova quite developed. Of course it was very small; smaller than mustard seed. The lobe was perfectly formed; and the little seed in it, the milt of the males, was in a corresponding state. I have tried them upon many occasions; and there is no doubt about it, that they are not barren.

2558. Lord *Polwarth*.] That ova would have ripened and developed in the fresh water?

Quite so; in these early rivers in Ireland, and also in lakes, are generally where there is a short facile run for the fish from the sea to the lake.

2559. *Chairman*.] Do the fish which go up the river, for the purpose of getting rid of sea-lice, ascend high, or do they content themselves with remaining just in the tide way?

They go up as high as they can.

2560. Earl *Ducie*.] You say those fish you caught in November had imperfectly developed ova in them?

Perfectly developed; it was very small.

2561. Those were the ova which would have been deposited in the succeeding October?

Yes. I have seen the salmon taken, and I have caught them myself in the early lakes, quite a copper colour, the ova not very far advanced; not a good looking

looking fish to send to market, but a right good fish to eat. Some people prefer them to other fish.

W. J. Ffennell,
Esq.

2562. *Chairman.*] You said that those were the fish that would have deposited their ova in the following October?

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I have no doubt of it.

2563. What would have become of the fish in the interval; would they have remained in the fresh water in the higher part, or have returned to the sea and again ascended to the fresh water?

They remained in the lakes the whole summer.

2564. Is there any case of fish remaining all that length of time in the river?

Yes; we can see them, for instance, in the river I have lived upon, the Suir, I have been watching the salmon since I was a child; in February, new fish come up plentifully; the water gets very low and clear, and we can see them in the reaches of the river, as we call them, or the dead pools through the summer; they are under our eyes and we watch them.

2565. Is it not the fact salmon, after being about eight days in fresh water, begin to deteriorate, in point of condition?

I do not think so soon as eight days; unquestionably they soon begin to deteriorate in fresh water.

2566. What is the effect upon salmon of a residence, if I may so express it, of nearly 12 months in the fresh water?

Perhaps up to midsummer, those salmon, though not nice looking fish at market, are exceedingly good fish to eat; they are discoloured.

2567. Are they marketable fish?

No, they are not marketable, from their colour.

2568. *Lord Polwarth.*] They are red in the skin, but fat in the flesh?

They are very fat.

2569. Their fat is rather softish fat?

Exactly.

2570. *Chairman.*] There is no doubt that salmon live and thrive for a whole 12 months, or nearly, in fresh water?

No doubt whatsoever.

2571. *Lord Lovat.*] One of the witnesses stated that he conceived that these early fish had spawned early in the season in October, and had gone down to the sea and were coming up again clean; is that your opinion?

I do not go that length, because I think what impels the fish to come from the sea to the fresh water is the germ getting to a certain stage (it may be in some degree speculative) and finding themselves in a state that they will spawn; I think that is very likely the impulse.

2572. When do you suppose those early fish had spawned previously?

I do not know; they may have spawned the previous October, very likely.

2573. Two or three months before?

I will not answer positively, but I think they do, because in all those cases, where we have those extraordinary early fish, there is a very short run from the lake to the sea; it is always in lakes that we have them.

2574. *Chairman.*] Do you know whether the fish that are driven by the desire of getting rid of sea lice into fresh water, after they have got rid of the sea lice, return immediately to the sea, or remain in the fresh water?

I should think not at all; I think it is quite ridiculous to say that it is to get rid of sea lice that they go there; I have taken salmon 30 miles above the sea with a rod with the lice on them.

2575. You do not think that the salmon are impelled by the desire to get rid of sea lice to come into the river?

Indeed, I doubt it very much.

W. J. Byernell,
Esq.
16th June 1886.

2576. Earl *Ducie*.] One witness has stated his belief that salmon spawn in the sea; what is your opinion upon that subject?

Really it is a thing too absurd for a man to conceive who has ever inquired into the thing; there is no evidence upon which to hang the slightest suspicion that such a thing could be; everything is against it. I think it has been stated by men who have always fished in the sea and know nothing about the fresh water, particularly men in Ireland. When the great controversy was going on about the policy of allowing bag nets and those things it was one of the arguments brought forward to justify them, but not founded upon any facts whatsoever. I believe it is totally absurd to imagine it for a moment.

2577. Lord *Polwarth*.] Will you describe the nature of the spawning bed, whether the fish spawn within the tide mark upon sand or mud or whether the nature of the animal is to go to small gravel in clear water?

They seek the shallow gravelly beds; they do not like to spawn at all where the tide flows; in some instances, when dry weather delays them, I have seen them in places where the spring tide flows up; their desire is to select sharp gravelly bottoms to spawn upon; they go up the most extraordinary places; in some places, the smallest streams, wherever there is a gravelly bed; they do not like fine sand, coarse gravel is the place they prefer most. There is all that instinct in the animal to distribute themselves, and not to be interfered with by others; we have observed in Ireland, as we have gone on in protection and closing early, that in rivers that for many years have had a small stock of spawning fish, we found the spawning fish were increased, and that spawning ground, if I may use the term, was ploughed and sowed that never before had been touched by salmon in the memory of man. If you allow salmon to go up the rivers they will distribute themselves and will spawn through every particle of it; they fight excessively about the spawning beds, and any practical man who has visited a salmon river, will know that in spring he will find a great many dead fish, never a female, but plenty of males dead, with ulcers on them. A very extraordinary thing occurred in the little town of Cahir, on the River Suir, this very spring, when I was in the country; at the Bridge of Cahir, a multitude of people were looking at two large salmon spawning; the water was very clear, and a small fellow came from a hole in the river and repeatedly attacked the big salmon; they had a great conflict; the big salmon was far more spent than he was; he wanted to get possession of the female, and the big fellow fought him off; at last the small fish struck the big one behind the gills and killed him, and the people went down and picked him up. You constantly find the male fish, as I dare say Lord *Polwarth* has often seen them in the spring, lying dead.

2578. Do you think it advisable to lessen the number of spawning beds in the river?

No.

2579. I have heard it stated that from the difficulty of preserving the smaller streams from poachers during the spawning season, it would be desirable to build dykes, to prevent the fish ascending those smaller streams, and to confine the spawning comparatively to the main stream; do you coincide with that?

I believe it would be a mistake to diminish the number of spawning beds in the river; the thing wanted is to extend them as much as possible.

2580. Earl *Ducie*.] On the other hand, do you think that such arrangements can be made on the spawning beds in the river, that they may be judiciously extended, and additional accommodation given for the fish?

I have seen it done in several places in Ireland, particularly in the mountain districts, where a great portion of the rivers run through a peaty place; they have dammed up the rivers' course, and directed the water along the base, perhaps, of a hill, over a gravel bed, instead of running through peat; and in such rivers, and in such a district, a great amount of spawning ground might be acquired.

2581. Do you know Screeb Bridge, in Connemara?

Yes.

2582. Do you know the artificial spawning beds there?

Yes.

2583. Will you describe them?

They

They turn the water in, and send it through a gravelly place; they widened it where the water was very deep, by widening the course of the river, still not too much diminishing the depth; in fact, to describe it, they made the spawning beds the breadth of this table, instead of the breadth of this sheet of paper.

W. J. Wyndell,
Esq.
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2584. Do you know that there is a bothy elected in the island in the middle of the spawning beds, and that during the spawning season a couple of watchers take their turn about to watch the spawning beds?

I was not aware of that arrangement of the water bailiffs. There is in Lord Plunkett's fishery a very valuable spawning ground, made upon the same principle, I suppose, for nearly a quarter of a mile, by the old course of the river, being altogether dammed up, and a new course cut through a gravelly slope; the salmon were actually touching when they went spawning on the new bed.

2585. Lord Polwarth.] By whom are those spawning beds protected?

It is a private river; it is easy of protection: there are very few people to injure the fishing.

2586. After protecting those beds, has the owner the mouth of the river?

He has; he holds it from Lord Sligo; it is one of the instances to show what may be done by cultivation. The lessee took that river from Lord Sligo, with a lodge and a good deal of mountain, for something very small, merely for the amusement of angling, but by cultivating the river now, besides having more fish than it is necessary to have for angling purposes, he sells several hundred pounds worth of fish in the year.

2587. Earl Ducie.] Are you aware that in the Inver Lake, in which there were formerly no sea trout or salmon, there are plenty, in consequence of the spawning beds that have been made there?

Yes, I believe so.

2588. There were no white trout or salmon formerly there?

A great deal can be done in mountain rivers by the increase of spawning grounds; I believe it ought to be extended as much as possible, even if there should be considerable poaching; under cover of floods, and in one way and another, a considerable quantity of salmon will spawn before they can be killed: if you let them up, a great number will spawn in spite of every poacher; in fact, if that had not been the case for some years in Ireland before we got things regulated, salmon would have been annihilated, if nature had not protected them to some extent.

2589. Lord Polwarth.] The temptation is very great to take the fish out of shallow water?

It is; there are very few fishermen when they get hold of salmon in the open season that like to let him go, no matter what his condition may be.

2590. He thinks that it will go to his neighbour, and that he will never see it?
Yes.

2591. It has been stated to us in evidence that the dragging of the weir shot, or sweep nets, injures the spawning beds to a very considerable extent?

I must say that in Ireland there are very few instances in which that occurs, for generally speaking the spawning places are not the hauling places; some complaints have been made on the River Lee where a good deal of netting occurs in the fresh water in February, and the early spring fishing of these men disturbing the spawn by hauling the sole ropes of the nets over it; my own opinion is that in Ireland there is very little mischief done in that way.

2592. From your knowledge of the natural history of the animal, you do not think that it would be likely to be done to any great extent?

I think not; I think that even where a net was hauled over the spawning bed it would go harmlessly enough.

2593. Lord Lovat.] The net passing over it does not disturb the spawn much, does it?

No; I thought that complaint upon the Lee was not very well founded either.

2594. Lord Polwarth.] You think a well-worked net will not disturb the spawn much?

No.

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2595. Viscount

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2595. Viscount *Hutchinson*.] Have you ever heard any complaints of the destruction of the fry in the early part of the season, in the months of April and May?

Yes; at one time it prevailed to a great extent in Ireland, but there is not now much destruction of fry.

2596. Have they not been constantly taken in nets and weirs in the smaller rivers?

Yes, in great quantities, particularly in what they call cogg-haul nets in Ireland, setting them upon the sluices of the mill weirs when they were running down. I have known them taken in cart-loads.

2597. I believe in some of the rivers they are in the habit of what is called turning the river?

Yes, draining off the water and running the fish dry on small rivers.

2598. Is there any provision in the Irish Act of Parliament to prevent that?

Yes.

2599. Do you think that it has worked satisfactorily?

Yes; I think there is very little destruction of fry now in Ireland; it is a very material thing, and it has been mostly stopped. We had to haul up the police recently upon the Nire; they were not so active as they ought to have been, and they got a rub from their chief; there was a good deal of neglect upon the Nire. I do not think the destruction of fry prevails generally in Ireland at all to the extent that it did.

2600. Would you recommend in any legislation, with respect to the Scotch fisheries, that some provision should be introduced to prevent the destruction of salmon fry?

Certainly; I would have it very stringent. I think nothing should be more stringently prohibited, because it is a frightful waste; if the practice prevails there, I think the legislation should be very stringent upon it; it is a very wanton thing to do.

2601. Lord *Polwarth*.] It is done chiefly by rod and line, is not it?

There is not a great deal more done by rod and line than used to be, and on the Suir we made a calculation. At one time a mill weir detained the fry in dry weather, when millions were collected in the water over the weir, until we got the miller to raise his weir every Saturday evening. Every little boy in the village had a willow rod and a line tied on the top, and three or four flies, and from morning to night they were pulling them out. On one occasion we got the fry from three or four boys in the evening upon an arrangement with them; it was all amicably done, and we reckoned, by computing the number of boys who had fished, that there were 250 dozen killed with the rod that day; and I believe it was an accurate calculation. That was at Ardfinnon, above the mill. Then I got the sluice opened there on the Saturday evening for about two hours, and it has been a most extraordinary sight to see the fry flowing down as thick as they could be.

2602. What could you suggest to prevent that destruction of the fry in the mill-dams?

It is a very difficult thing. With respect to preventing the fish coming up to the tail races, that is one part of the question, and perhaps the most important; the millers always beat us in allowing any interference which might throw back water upon the wheels and all that; but I am satisfied that that could easily be remedied without at all injuring the millers, in this way: a very long net on a frame could be put down at the end of the tail race, where there is always a strong stream, say a net as long as this room, no matter how wide the mouth of it, tapering down a very little. I would hang that in the stream, and in that way no salmon would ever hit the hole; it would not be tight; weeds and everything would pass through that net. The millers now object that if you put a grating up it will throw back water, and weeds will accumulate every hour and destroy the mill. I think a net upon a frame in tail races would obviate everything; the whole trunk of a tree would pass through that net; everything would pass through.

2603. Would not the river conservators be obliged to put in the net?

I do not think it would signify who did it; it would be a very inexpensive net, and would last for a long time, being made of strong twine.

2604. *Chairman*.]

2604. *Chairman.*] A comparatively small number of fish, if allowed to ascend the river and spawn in security, would be sufficient amply to stock the river, would it not?

I think not. I think it requires a good stock of fish amply to stock a river, though people have spoken of the many thousands of ova (something like from 11,000 to 17,000) in a large salmon; but from the very commencement there is a great waste, and I believe one reason why they are provided with such a quantity is to meet this waste. In the first place there is a great quantity of ova not impregnated; that I have proved myself by taking it up out of the gravel; the greater portion of it was quite opaque, and the milt of the male had not come in contact with it at the right time. There is another large proportion of it that the fish fails to cover in the gravel; it is carried away by the stream either into deep water, or into muddy places, and is lost; unquestionably, when the little animals come to life, that red bag that is attached to them for three or four or five weeks is a great attraction, and the smallest trout eat a quantity of them. All fish live upon each other; ducks, particularly wild ducks, which abound in Ireland, destroy a vast quantity of ova. Every spawning bed in the winter is a very favourite place to go and watch for wild ducks; you see them with their heads under water, with their heels up, rooting the ova out of the spawning beds; wild ducks feed immensely upon it. Then when the fry are going down, a great many are devoured, and also when they get to sea. I once saw 26 salmon fry taken out of what we call a black pollock in Ireland, which is called the coal-fish; a big fellow weighing 15 or 20 lbs. that was killed in the bay of Killala, outside of Ballina, when the fry were going down; to meet all these things, the fish are given a greater multitude of ova. I do not think that a few fish will stock a river; I am quite satisfied in my mind that they will not. I do not know a river in Ireland that is half stocked with salmon fully to develop its resources.

2605. *Lord Polwarth.*] Do the common sea gulls, which come up in vast numbers, destroy the ova?

I do not think the sea gulls do; they could not get at it.

2606. *Chairman.*] Do salmon usually return to the rivers in which they are bred?

The bulk of them do; I do not think it is an invariable rule.

2607. Do you believe that the fish bred in one river are distinguishable from the fish bred in another?

I think they are, to a certain extent. We have the Waterford fish, which are quite of a different shape from the Cork fish, and the Dublin fish are quite different from the Shannon fish. There is a great difference in the shape of the fish. There is one part of Ireland where there are bag net fishings that intercept the salmon from the Rivers Foyle, Ban, and Bush; and the fishermen there, when they take a fish out of the net, will undertake at once to select the Bush fish, and the Foyle and Ban fish; and I believe they can. I would not venture to do it myself; but there is a prevalent belief there that they can, and there certainly is a difference in the shape of the fish.

2608. You believe that the fishermen can distinguish between the fish?

I believe they can to a certain extent, because I see myself that there is a great difference. In the Liffey you never see the deep thick fish that you will either in the Shannon or the Suir; and the longer fish of the Boyne, that is near Dublin, is a much better shaped fish than in the Liffey, which is within a few miles.

2609. *Viscount Hutchinson.*] Do you think that the number of fish ascending the river in one year, as compared with another, varies according to the amount of water which is running down the river?

No; I think that the time of their ascending the river varies according to the amount of water; they will not approach the river when the water is very scant, but I think that they will collect in the tideway; that as many would finally enter the river. There is a point which does not strike people sometimes; one reason why it is necessary, with all the skill that is employed now, and the multiplicity of engines used in the capture of fish, in my mind, to close early, is the fact that in a dry summer the fish will not for several months, perhaps June, July and August, seek to ascend the river at all; when there is no obstruction

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they will hang in the tideway for those three months, and if you are to keep fishing for them, and get those fish out, when the floods do come they are not there to ascend the river in sufficient quantities; and in my mind, unless both countries adopt earlier closing than is at present adopted, the fisheries must deteriorate.

2610. Take two rivers which run out of Galway Bay, the Rahoon and the Spiddal, how does a dry summer, as distinguished from a wet summer, affect the fishing of those two rivers?

Those small rivers will scarcely get any salmon; that little Furbough river that your Lordship is acquainted with, in a dry summer will not get one salmon, and the Spiddal very few; the great river at Galway is enhanced in its capturing in proportion, and then when a wet summer comes those small rivers have a very considerable quantity, and the large river is similarly affected. I think that salmon return to the same bay and the same estuary; but that all of them go up the same river, I do not hold is at all an invariable rule.

2611. *Chairman.*] All fishings fluctuate very much; in respect of the fish taken, do they not?

Salmon fishings and all fishings have very great fluctuations; the fluctuations of nature interfere particularly in mountain districts, where a great deal of damage is done by excessive floods. At a certain time of the season it tears away the beds in which the ova has been deposited in some cases, and it brings an excessive deposit over the beds in other cases, and there is a great deal lost in that way. Then the higher parts of mountain rivers remain dry for a long time, and a great many of the fish are induced to spawn in places, so that when the young fish are about to vivify, they are left altogether dry, and perish. We have effected great good in Ireland by the way in which we have attended to a recommendation that I gave originally, which was, that on those rivers each water bailiff should carry a spade. The water bailiff always knows what a spawning bed is, and when he saw a spawning bed getting dry, in five minutes he could divert water by damming it with a few sods, and direct a sufficient quantity of water through this bed, which would save all the little fish in it.

2612. Lord *Lovat.*] Is the spawn hurt by frost?

If it is exposed; I do not think, unless it is quite bare, that it is hurt by frost.

2613. Statements have been made by persons who have written upon the subject, of spawn being frozen, and then being hatched?

I should not be surprised; we have salmon abounding in those countries where the waters are always frozen. I do not think the spawn suffers much from frost; the places where the spawn is deposited are very seldom affected by frost, inasmuch as they are in rapid running streams, which very seldom freeze.

2614. At what inclination have the salmon ladders, that you have described, been placed?

According to the inclination of the water, one in eight is very easy; if you have a pretty fair supply of water, you can bring them up one in five, or one in four, for that matter; it is only to raise the size of the trough; to diminish the ope a little, one in six is a very nice incline, or one in eight is very easy, but it depends upon circumstances; you can sometimes avail yourself of a fall, and give it as easy an incline as possible. With respect to these ladders, there is great use sometimes in exhibiting things; we exhibited models of these ladders at the exhibition in Dublin in 1853; we had little live fish going up them; we sent those models afterwards to Paris, where they attracted great attention; there were some Canadian people there who saw them, and they wrote over to us soon after having seen the model. I have had some correspondence with them, and they have now erected, and are in the course of erecting, a great many of those ladders over the weirs in Canada, where they have dammed up the water for saw-mills, and where the salmon were greatly impeded; they are adopting our plan on the weirs in Canada now very extensively; the Government has taken up the question, and appointed Fishery Inspectors, and they are beginning to look after the salmon which were declining so much.

2615. Lord *Polwarth.*] Do those ladders suffice to carry the fish over the mill weirs?

Yes.

2616. Do

2616. Do you think they would answer in the rivers in Scotland?
Yes, or anywhere.

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2617. Are you aware that on some of the rivers in Scotland the millers are obliged to leave a certain space open, which is termed a slap?

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Yes.

2618. Those slaps do not always answer the object, do they?

No, they do not; if the weir is a very high one, with a quick incline, the water runs so thin, and with such velocity, that the salmon cannot get up; but with one-fourth or one-eighth of that water, with a well-adapted ladder, the salmon will go up as easily as possible.

2619. These slaps are chiefly made of wood to prevent the stones being washed out, and if there is an eddy underneath the wooden frame, the salmon have a tendency to get under it?

If it is ill constructed in that way, it might be very dangerous, but it ought not to be so constructed.

2620. When the slap has been left for a considerable time, and the river is rushing over that plank of wood, is not there a tendency to wash out the stone, and make holes?

Yes; but I take it it would be a matter of very great negligence to allow that to occur; I do not think it ought to be the case.

2621. The tendency of the animal is to go through that hole, and not to go right up the stream?

Yes; but it must be by very great neglect that a contrivance of that kind is allowed to get into such a bad state.

2622. It is possible that such neglect might take place?

Yes.

2623. Would the ladders that you use in Ireland obviate that difficulty?

Our ladders are built with solid stones into the weir; they become part of the weir, and nothing of the kind can occur. One of the great advantages attending these ladders of ours is, that the fish can be passed up without diminishing the millers' water-power the least degree in the world; therefore one interest does not come into collision with another. And, strange to say, we took the principle of our fish ladders in Ireland from a great man in Scotland, Mr. Smith of Deanston; we did not originate it; and it is only due to his memory to say, that we took the idea from his plan, and have applied it in Ireland.

2624. Lord *Lovat*.] Could you take salmon up 30 or 35 feet by means of a ladder?

You could, or any height.

2625. Lord *Polwarth*.] Will you explain to the Committee more fully in what respect you think the Irish fishery law might be made applicable to Scotland?

The main difference between the two countries with respect to salmon fisheries I take to be, that there is a public right prevailing in Ireland, and no such thing in Scotland. Under those circumstances I thought the Scotch people ought to govern themselves; but I wish to add, from something which fell from one of your Lordships, whether it might not be justifiable to procure the aid of the coast-guard in the observance of the weekly close time; and, with great respect, I would venture to say, that it would be quite legitimate to seek for the aid of the coast-guard, for though the fisheries are in one sense private property, they are distributed and divided amongst a vast number of persons. For a thing so essential as the fair distribution of the fish, by allowing this weekly close time, and also allowing a sufficient quantity to go up the rivers, I do apprehend that it would be most legitimate to apply the coast guard. In my opinion salmon fishing ought to be looked upon as a public question, though they are private property, because they are distributed amongst a vast number of persons.

2626. Would you employ the coast-guard for the protection of the spawning beds?

The coast-guard are not placed in a position to look after the spawning beds, but they are not only placed favourably for enforcing the weekly close time, but they have the means of going to the nets, and of all other persons, can do it best;

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they are stationed round the coast, and have their boats; there are always four or six of them in the same party, and therefore they are the persons who can best do it.

2627. The coast-guard have no position in the civil government of the country, have they?

We give them that duty in Ireland; at all events they are very useful.

2628. Do you employ them as bailiffs or constables, or in what way?

They are required by Act of Parliament to protect the fisheries.

2629. Viscount *Hutchinson*.] You have stated that the coast-guard could not protect the spawning beds; would you suggest, for similar reasons, that you have already stated with regard to Ireland, that the police in Scotland should be employed for that purpose?

Unquestionably; if there were police in the country, I think it would be quite legitimate to employ them for every offence committed in the close season, inasmuch as it affects the resources of the country, and affects every one; it affects those who have fishings, and it affects those who are to buy the fish, and eat it; for every offence in the close season I think it would be perfectly legitimate to employ the police.

2630. Lord *Polwarth*.] You think it would be legitimate to employ the public police for the protection of property which belongs to an individual, or to an association?

I do; I think the police would be bound to protect a farmer if they saw thieves taking his turnips, or stealing his sheep; I think salmon fisheries are not a property so different that the police, in the close season, when it is an offence against every one, should not be employed; I think it would be exceedingly improper to employ the police as bailiffs to individuals to keep off trespassers in the open season; when one man was trespassing upon another man's fishing that would not be legitimate at all, and they are not suffered to do so in Ireland. All offences against the close season I look upon as offences against the community.

2631. You do not think it would be a stretch of the law, or a misapplication of the police of a district, to employ them in preserving the spawning beds, more particularly when the person upon whose property that spawning bed is situated never can derive the smallest advantage from the salmon fisheries?

Certainly not.

2632. Are not the greater proportion of those spawning beds districts where the proprietors of the soil never see a salmon during the whole of the fishing season?

They never see a good salmon, and they never can see a good salmon; there is a great quantity of water in which they never will, and never can see a good salmon.

2633. Do you suppose that the gentry or tenantry in a district of that sort, will, of their own accord, protect the salmon at a considerable expense, and at the risk of incurring great odium?

Certainly not. When they never can, by possibility, derive any advantage, by having good salmon; but in those positions, some of the most valuable spawning beds are situated.

2634. Do you know whether it is the practice in Scotland to permit any portion of the police force of the country to be employed in looking after the fisheries?

I know nothing of the regulations in Scotland; I know it was a good thing when we first got the police solely to act for offences against the close season. The section of the Act of Parliament which authorised them to act is specific upon the subject, for it says, "all offences committed in the close season," because those were considered to be offences against the community, and they would be the same in Scotland.

2635. You do not employ the police in Ireland to protect the salmon fisheries during the open season?

Certainly not. They would not be allowed, and should not, in my mind; but it is looked upon, as I said before, and repeat, that offences in the close season are offences against the whole community, not only those who own the fish, but those who might buy the fish.

2636. Viscount

2636. Viscount *Hutchinson*.] In Ireland, when a party has been imprisoned in default of payment of a fine imposed for some breach of the fishery laws, who bears the expense of his imprisonment?

The county of course, if he is not able to maintain himself.

2637. Lord *Polwarth*.] Is that the case in the event of his being caught taking fish the property of a private individual during the fishing season?

We have a very stringent clause in our Act to protect private property. Every person found in a several fishery taking fish, or under the pretence of taking it, is subject to summary conviction before the magistrates.

2638. Viscount *Hutchinson*.] What is the penalty?

The minimum penalty is 10 s., and the maximum 5 l.

2639. Lord *Polwarth*.] Supposing the offender cannot pay the fine, and is sent to prison, at whose expense is he maintained?

By the county; there is no such thing in Ireland as a private party being required to support people in prison.

2640. Viscount *Hutchinson*.] If you were told that the law in Scotland is exactly the reverse of what it is in Ireland, that where a prosecutor has succeeded in getting a conviction against a person for some breach of the fishery laws, and that person does not pay the fine, and is committed to prison, the prosecutor has to pay the expense of his maintenance in prison during the time for which he is committed, would you not think that there might fairly be some alteration made in the law upon that subject?

I think that that law ought to be immediately repealed, for I think it must be a bar to the protection of the fisheries. I know that in Ireland it would be fatal to it.

2641. Lord *Polwarth*.] In what way does the law in Ireland provide for the punishment of the owner or the lessee of a fishery, in the event of his infringing the weekly close time?

He is prosecuted by any one, under the Act of Parliament.

2642. By the Board of Conservators?

By the police, or by any one; it is the duty of the inspectors and water bailiffs, under the Board of Conservators, and they are the parties who generally take cognizance of such offences.

2643. The prosecution is conducted, in fact, either by or under the directions of the conservators of the district?

It has very frequently occurred that the conservators have prosecuted.

2644. Who bears the expense of the prosecution, and the subsequent expenses?

In the first instance, the party convicted by the magistrates has to pay a penalty, and so much costs. If he has no means, there is power at once to seek for his goods; some people would go to gaol when they could pay the penalty and costs; but recourse can be had to their goods, and they can be sold for the amount of the penalty.

2645. That is in case of conviction; but suppose the conviction fails, upon whom does the expense fall?

The expense falls upon the party prosecuting; he must take his chance of that.

2646. Then the expense falls upon the Board of Conservators?

Yes; practically, that is no obstacle to the prosecution; they do not prosecute until they have a pretty safe case, and generally those cases are not to be got over.

2647. Viscount *Hutchinson*.] I think you stated, in reply to a former question, that it would be competent to any one to prosecute?

Yes, that is our law; it frequently happens in Ireland that a person who is not a water bailiff or conservator, or a constable, or a coast-guard, prosecutes. People who do not like to see the law violated, if there happens not to be a water bailiff there, and they see an offence committed, it is constantly the case that they prosecute. We have got a very good provision in our fishery laws, giving power to the magistrates to summon parties who are discovered to have

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been present and witnessed a breach of the fishery laws; if they do not appear when summoned, a warrant is issued, and they are liable to a penalty of 5 *l.* for disobeying the magistrates. If a water bailiff has not seen the offence committed, and he discovers, which is frequently the case—it sometimes oozes out in gossip—that there were certain persons looking on and saw the offence committed, if he can only get hold of their names, and applies for a summons, he can make them come forward; and the magistrates are required, if the persons do not come, to issue a warrant against them for contempt; and when they are brought forward, if they refuse to give evidence, there is a fine of 5 *l.* or instant imprisonment for disobedience. I really believe that it is a most constitutional and salutary law, because a person looking on at an offence against the public is an aider and abettor, practically, if he will conceal it. If he is a person who feels no obligation to come forward, he ought to be compelled, and I think that that is perfectly constitutional.

2648. Lord *Polwarth*.] You have stated that the police assist in the preservation of the spawning beds in Ireland?

They do, very materially.

2649. Are the funds derived from the river in any way applied to defraying the expenses of the police?

In no way whatsoever.

2650. Then the funds of the river are not necessarily applied towards the preservation of the river during the close time?

There is a certain number of water bailiffs in all districts retained for the open season, to enforce the payment of licensed duties; if men are caught fishing without a license, to enforce the observance of the weekly close time, to look after the mill races, and see that there is no damage done there; we have a pretty stringent law with respect to mills.

2651. You trust, to a certain extent, to the public police to preserve the small streams?

To a very considerable extent; we have a very fair staff of water bailiffs now, and the police co-operate in that way very well. If a water bailiff finds that a parcel of fellows are about to go with lights and spears to kill salmon at night, they may be a party that no one or two men could with impunity attack, he goes to the police barracks, and the police immediately go with him and assist him. The water bailiffs often do a great deal of good in that way, as discoverers for the police when offences are likely to be committed; they know, by going along the river, they see the salmon themselves, they know the spawning beds, and they know that in the night people are very likely to come, and they go and inform the police, so that the police will take up a station there, and the water bailiffs can go elsewhere. If they are afraid of being assaulted, which often has occurred, they get the aid of the police, and the police go with them to protect them.

2652. It is considered part of the duty of the police?

Yes.

2653. Is not there very stringent legislation about mills in Ireland?

Yes; in the first place the proprietors of mills are strictly prohibited from taking fish of any kind in their sluices, head races, tail races, or any appurtenances whatever, and if it is shown to the satisfaction of the magistrates that the miller's men do the mischief, and that he has not taken due precautions, and used due exertions to prevent it, he is subject to a penalty himself; many penalties have been inflicted upon millers under these circumstances, when it has been proved to the satisfaction of the magistrates, that they have not done as much as they ought to have done to prevent their men from poaching, and the men cannot be found.

2654. Do you think that a close time for fresh water fish, such as trout, would be any advantage in the preservation of the salmon fry and salmon fisheries?

In the spring I think it might, but I think it would be very hard to carry it out. In our first Act for Ireland there was power to fix an extended season for trout fishing, but that was found not to do at all; under the pretence of killing trout, people killed salmon, and by the last Act, we were precluded in our changes of

of the close season, from fixing a different season for trout and salmon; that enactment provides that whatever close season is fixed for salmon, it must be the same for trout.

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2655. Have you power over trout as well as salmon fisheries?

Yes; we have power over eels and everything.

2656. Viscount *Hutchinson*.] When you speak of trout, do you mean sea trout?

And brown trout.

2657. Lord *Polwarth*.] Have you control over all the fresh-water fisheries of Ireland, sea trout, lake trout, carp, tench, eels, and other fresh-water fish?

Everything.

2658. Are those fresh-water fish not allowed to be taken during the season in which you prohibit the taking of salmon?

Certainly not; no net is allowed to be used during the close season for salmon unless we see the necessity to make a regulation to do so. I have a note, lest I might not have been fully understood by your Lordships, yesterday, with respect to why I think it would be valuable to prevent the netting of salmon in fresh-water rivers. I wish, in the first instance, to explain, that I always intended that chartered fisheries, like those of his Grace the Duke of Richmond, should be excused. I would take the next fishing above the tide way, where they were chartered. There is also another provision that we have in Ireland, namely, that we can sanction, and do it, cause being shown, a lesser size of mesh for the capture of pollen, perch, pike, or anything else. Not long since we did it upon Lough Rea, one of the great lakes on the Shannon. An application was made to us on the ground of the loss from these fish not being caught; and the parties applied for a lesser mesh. I went to Athlone, and met one or two noblemen and gentlemen of the country, and a host of fishermen; all parties were unanimous, and showed good cause, and we immediately sanctioned the using of a lesser mesh for the capture of pollen, perch, roach and those fish.

2659. In that case I suppose your regulation mentioned the particular locality?

Yes, it mentioned the Lough as the locality.

2660. Can a private person take pike, tench or carp out of his own pond during close time for salmon without your permission?

No, not strictly speaking, with a net, but no one ever objects to it; permission would be granted immediately upon the application being made. I should say that we have very few such things in Ireland as those stew ponds; I do not know of one in Ireland; I did know of one or two some time ago, but they have been given up.

2661. You have the power of preventing their being taken unless you grant leave?

Yes, the law is, that no net for the capture of any fish shall be used during the close time for salmon unless we authorise it.

2662. What is that close time?

It varies. I gave in a list of the seasons yesterday.

2663. The restriction as to taking fresh-water fish applies to the period at which the close time for salmon is fixed in the particular district?

Yes; to illustrate the matter, we will come to the rivers in Scotland. Suppose there are three miles of a river from the sea up a rapid stream, and there are no pollen, perch or pike, or those fish, and nothing but salmon, people do not want a net, and that is not netted. Suppose we come to a lake where those fish prevail; it is only to make application to our Board, and we can authorize a smaller mesh to take pollen, or whatever there may be in that lake.

2664. Lord *Lovat*.] What are pollen?

Fresh-water herrings; there are plenty of them in Scotland. The truth is, I conceive, that these circumstances attending the fisheries are so varied, that to have a law carried out, approaching to perfection, it is almost essential to have the power to make regulations and bye-laws according as those circumstances may require. A particular locality under certain circumstances may require a regulation that may be highly mischievous as a general rule.

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2665. Earl *Ducie*.] You think that there should be a similar discretionary power in some Board in Scotland to that which is vested in the Irish Fishery Commissioners?

Yes.

2666. Lord *Polwarth*.] Do you think that the fresh-water fish in Ireland, other than salmon, have increased since those regulations have been introduced?

Very much.

2667. In your opinion that is a source of national wealth which has been developed since your Board has been in operation?

Very materially; particularly that of brown trout fishing in some of our large lakes. It is a very attractive thing to Englishmen, and numbers of Englishmen come over to our lakes to fish. In the green drake season there is magnificent fish on the Shannon and other lakes, and there are brown trout, which do not migrate, up to 11, 12 and 14 lbs. All those fishings have greatly increased, because the water bailiffs and police take cognizance of those fish as well as salmon.

2668. Then you think the regulations with regard to fresh-water fish have indirectly tended to the general prosperity of Ireland?

Very much; it is a great attraction, and serves the people.

2669. Was it considered a great hardship by the people of the country to be placed under those regulations?

Not at all; the people now begin to feel the value of them, and would be very sorry to allow things to go back to their former state.

2670. They begin to feel that, to a certain degree, the national wealth has increased?

Certainly; I may mention one case that occurred; there is a very nice lough, one part of which is in Donegal, and one part in Leitrim, Lough Melvin; that lough was frequented by people from England, as well as from Ireland; there was a whole parcel of cottages, and three or four hotels, for the accommodation of visitors, and a great many people were employed in attending them, with boats and tackle; it was a source of very considerable emolument to a great many round the lough. An implement called an otter was introduced some years ago by an officer who went there; for a while the people were delighted with it, and set to work to otter themselves; but after a time it destroyed the fishing of the lough so much that it was deserted by visitors, and they lost the emolument which they derived from those visitors; we got a memorial signed by over 200 persons, and I think at least four Roman Catholic clergymen signed it on behalf of the people, to request that we would make a bye-law to prohibit the use of this otter, as it had entirely destroyed that which they had obtained from visitors. We made a bye-law, and in the end got positive legislation upon the subject, and now the use of the otter is prohibited altogether in Ireland. In my view the value of fresh-water angling in many other parts of Ireland is a most material thing. There are the Westmeath loughs, so famous for green drakes; the farmers round those loughs have rooms fitted up where the anglers are accommodated, and the little villages are filled for six or eight weeks by anglers; there are hundreds of them buying their poultry, their milk and butter, and paying rental for lodgings, and employing the people on the lough with boats; it is a most material thing, and one in my mind that ought to be encouraged in every country.

2671. Is not the fish itself of some value?

The value of the fish is very considerable from some of our loughs. There is a very large commerce from Lough Neagh, in lake trouts and in pollen. I suppose there are 400 people employed in the pollen fishery in Lough Neagh. We have special power for regulating the pollen fishery.

2672. Do you think the lake fishings in Scotland might be improved by some regulations of the same sort as those which exist in Ireland?

I am not acquainted with the Scotch lakes; but, judging from Ireland, I think they could.

2673. You think that the Scotch lake fishings, if properly taken care of, might be made a source of national wealth?

I should say so. There is one branch of the fisheries in Scotland that I understand is altogether neglected that in Ireland is very valuable, namely, the eel fisheries.

fisheries. On the Lower Bann, in Ireland, we have two eel fisheries that let for 600 *l.* a year each; the eel fisheries at Toom are let for 700 *l.* a year to a very solvent man, a fishmonger in Belfast, and it is supposed that he nets another 700 *l.* by them. Below those fisheries, eight or ten miles, there is another fishery let for about 600 *l.* The commissioners were obliged to purchase up the eel fisheries on the Shannon to execute the navigation works, and they are of material benefit in maintaining the staff at the locks. Our Board derives about 700 *l.* from the eel fishings on the Shannon. All those eels come to Liverpool and London alive; and I have often been astonished that in Scotland, the immense upper waters, which of course produce a great many eels, have not been turned to commercial account.

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2674. Lord *Polwarth.*] Are the eels under the regulations of the Board?

Yes; All eel nets pay a license duty, and the eel fry are protected by the water bailiffs in their ascent, as well as the salmon.

2675. Lord *Lovat.*] At what season are the eels caught?

In the autumn. I saw 20 tons weight of eels taken in one night, in one of the weirs in the Bann.

2676. Earl *Cawdor.*] In what manner are the eels caught?

In a long purse net.

2677. Are the eels caught on their way down to the sea?

Yes; they are just the reverse of salmon. The old eels go down to the sea to spawn, and the fry ascend the rivers. Whereas the salmon come up the rivers to spawn, and the fry go down to the sea.

2678. Lord *Lovat.*] Do the eel fry come up the rivers in June?

Yes; and sometimes in May. Under the Board of Conservators, by the laws of the country, the eel fry are protected, and cognizance is taken of the eel fisheries just as much as of the salmon.

2679. Viscount *Hutchinson.*] Would you recommend that the use of cross lines and otters should be prohibited?

I should recommend that the use of otters should be absolutely prohibited everywhere, and that cross lines should be strictly prohibited upon rivers. I would not go to the extent of prohibiting cross lines upon lakes, but I would prohibit otters everywhere.

2680. Would not you require the intervention of some fishery Board to decide the boundaries between rivers and lakes?

I question whether it would be necessary; the thing is so very palpable in itself.

2681. Take Lough Dearg on the Shannon, would you say that the northern boundary of Lough Dearg, was Portumna Bridge or Belle Isle House?

Above Portumna Bridge it is lake partly; it ends at Killaloe below.

2682. Do you think that opinion of yours would be coincided in by everybody?

It might be questioned. If that prohibition of cross lines were to be carried out in rivers and not in lakes, it would be very easy to cause some authority to mark upon the ordnance map of the country what was the lake and what was the river; you need not go to any fine paring in that respect. I think it would be advisable for some functionary to mark upon the map where the lake ended, in a similar way that we decide the mouths of rivers, because it would prevent litigation and dispute.

2683. *Chairman.*] Do I correctly describe the measures which you recommend for the preservation and increase of the breed of salmon in Scotland, when I say that you recommend, first, the abolition of stake and bag nets, or the utmost possible limitation of their number?

I would recommend the total abolition of those fixed engines in harbours, bays, and estuaries, and would not allow them anywhere but upon the open coast; that is the evidence that I gave before the Committee in 1849, and I still hold to that opinion; I would not allow them inside headlands at all. With regard to what I stated yesterday, perhaps I may repeat, lest I should be misunderstood, in what I said; I do hold that it was a very unfortunate thing that stake and bag nets ever were allowed in either country. The argument that the use of stake and bag nets was expedient to increase the capture of the fish, and that more would be

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taken in the aggregate, and that it was rescuing the salmon from the seals for the use of man, I would beg to state to your Lordships I altogether hold to be speculative and not to be the case in reality, and that placing those nets in the pathways or the course of the fish, day and night, I believe to be most injurious to the salmon fisheries.

2684. Secondly, I understand you to recommend the prohibition of all fishing between the 12th of August and the 1st of February?

Yes.

2685. Thirdly, the enforcement of the making of a free shore or Queen's gap in all cruive weirs, and the making of ladders over mill and navigation weirs?

Yes.

2686. Fourthly; the enforcement of the Sunday slap in all cruive weirs?

Yes; in all cruives, and in all bag and stake nets that may remain. I do not think there ought to be any abatement whatsoever of the weekly close time for stake and bag nets, if any of them are allowed to remain.

2687. And, fifthly; the employment of the coast-guard, and the county police, in the protection of the fisheries during the weekly and other close seasons?

Yes.

2688. Are there any other measures that you would recommend for the preservation of salmon fisheries in Scotland?

I would recommend, further, that there should be some tribunal by which, under circumstances which might arise, there would be the power to modify the close seasons from time to time.

2689. Do you think it advisable that the size of the meshes of the stell and sweep nets should be defined by law, and restricted to one inch and three quarters?

I think that all nets used for the capture of salmon, stell nets, coble nets, and everything, ought not to be less than one inch and three quarters, from knot to knot.

2690. Lord *Polwarth*.] In rivers which are fished by the weir shot net, would you allow one net to be used after another?

Certainly I would not allow that.

2691. You would regulate either the length of the nets, or the time at which they are drawn?

Yes.

2692. Earl *Cawdor*.] Are there any regulations which you would propose with regard to sweep nets?

In Ireland we have found a system in practice which works very perniciously and unjustly; a weir shot net is held at one end, the other being in a boat, it is therefore made a stationary net for a while before it is hauled; then they shoot another behind it, so that it is a barrier across the river while the former net is being hauled in; it becomes a stop right across the river. In our amended Act, that abuse is to be provided against, because, in fact, it is a fixed engine, used improperly, under the pretence of being a draft net; we have a clause in our present Act, simply saying that no net shall be shot entirely across the river; that is of no use, for if the net falls short but six inches they evade the law, and we have clauses prepared to provide against that.

2693. Lord *Polwarth*.] Have you any means by which you prevent a succession of weir shot nets?

No, we have not; we mean to look for it.

2694. You have no means by which you can prevent one weir shot net being thrown out to stop the river while the other is being drawn in?

No.

2695. Earl *Cawdor*.] What means would you suggest to prevent that being done?

I would require one weir shot net to be entirely hauled in before the other was shot; it takes some time to haul a weir shot-net, if it is legitimately done; during

during that time the fish can pass. I would not let one weir shot-net be shot, say within 500 yards, or something of that kind, to be agreed upon, till the other was entirely drawn in?

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2696. Are not those weir shot-nets worked day and night?

They are in certain places, at certain times of the tide.

2697. Lord *Polwarth*.] Are not they worked whenever there is the least chance of a fish running?

In many places, in the tidal water.

2698. *Earl Ducie*.] Would you propose to extend the period for rod fishing in Scotland?

Certainly; I think it is fair, and I think it would be attended with very good results. I think you must give the upper people some inducement; in Ireland we generally extend it a month; the first Act extends it 14 days, but the subsequent Act repealed that provision, and we can now extend it as much as we like; but the rule is about a month. We have in a very few rivers the rod fishing extended to the 15th of October; that is the latest; but the general rod fishing of Ireland is extended to the last day of September, that is the general rule, and I would say if the fishing closes on the 12th of August, an extension to the 12th of October would be sufficient to allow the rod fishing, or the whole of October might be allowed.

2699. Viscount *Hutchinson*.] On the other hand, would it not be advisable to prohibit rod fishing in the early part of the netting season, so as to prevent a number of spent fish being taken by the rod in the upper waters before they descend to the sea?

Our third Act, the 9th and 10th of Victoria, provided that the sea fisheries should commence a month before the fresh water, with that very object; but we found very great jealousies arise, and we have it now under our consideration; I was always opposed to it. I do not think it fair to the upper men, upon this principle, that if it is mischievous to kill the kelts in large quantities, and they are to be spared, it is for the advantage of the tidal fishers who will get 9-10ths, if not 19-20ths of them if they are spared; and I maintain, as it is for the benefit of the tidal fishers to spare them, that they ought to concede a portion of February, because it is very material to the upper waters, that as many new fish should be allowed to ascend in February as possible; indeed in many rivers, the angling depends entirely upon what spring fish get up; for instance, in the Lee, and in many rivers, they will not ascend after May and June, they will in a season like this, but in many seasons they will not. I always thought it was unfair to the upper men, to allow the tidal people to begin a month before, and though the tidal men in February might lose some benefit by not fishing in the early part of the month, still I think that they ought to give up something for the advantage of having the kelts spared, 19-20ths of which they would get.

2700. Lord *Polwarth*.] Do not the tidal fishers, or those in the lower part of the river, take a great quantity of kelts?

No, not in Ireland generally; there are a few places in the tidal waters where many kelts are taken.

2701. Where the water is quiet, large quantities of kelts may be taken?

Yes, in a quiet river like the Slaney; but in most of our tidal waters, they go off to sea.

2702. Are you aware that in Scotland, the fishers are obliged to return the kelts to the water?

Yes.

2703. Viscount *Hutchinson*.] Are not most of the kelts in Ireland killed by the cott men?

A great quantity are killed in the Slaney by the draught net.

2704. *Chairman*.] Do you think that a central Board should be established with discretionary power to modify the regulations with regard to the close season?

Yes; I think there ought to be some functionary by which that should be done.

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2705. Viscount *Hutchinson*.] Do not you think also that the authority to which you refer should have the power of defining the limits of estuaries and rivers?

I think it would be very salutary to have some power such as that given to us to define the mouths of rivers, in case of dispute.

2706 More especially in the event of an amendment of the law being introduced, which would prohibit the use of fixed engines within certain distances of estuaries and rivers?

I think so; our regulation in Ireland is this, and I think it is a very salutary one: In case of dispute as to where the mouth of the river is, we are called upon, and we define the mouth; we delineate it upon a map, and that map being lodged with the clerk of the peace and the clerk of petty sessions, is evidence in a court of justice.

2707. Some copies of those maps are appended to the Report of the Committee of the House of Commons in 1849, I think?

Yes; but some were very imperfectly done at that time. I think it is quite a necessary thing that there should be some authority to define the mouths of rivers, and to delineate their definition upon a map, which map being lodged with certain functionaries, should be evidence in a court of justice.

2708. Lord *Polwarth*.] Do not you lay them down upon the ordnance map?

Yes, they are all laid down now upon the ordnance map.

2709. *Chairman*.] Have you any other recommendation to make with regard to the salmon fisheries in Scotland?

I would unquestionably like to suggest the prevention of netting in fresh water, under the limitations that I have stated.

2710. Viscount *Hutchinson*.] In the event of that suggestion being adopted, would not it be necessary to give the authority of which you have been speaking, the power of fixing the limits within which the use of those nets should be legal in fresh water.

I do not think it would be necessary, because I think the fresh water distinguishes itself from the tidal water; but I would save the rights in the fresh water of all chartered fisheries exercising a right now just above the tideway; but beyond that, nets should not be used in the fresh waters of the country; whatever be the fate of it, I would like to make the suggestion; I think it so important, although it may be disapproved; I should not like to withhold its being recorded.

2711. Are you not aware that all salmon fishers in Scotland fish by charter?

I am not aware that they all do. I have apprehended that a considerable portion of the upper waters may be attached to the landed interest.

2712. Lord *Polwarth*.] The right of salmon fishing is by charter, but the salmon may go far beyond where the charter applies; is that what you mean?

Yes.

2713. And that the breeding beds are not situated within the chartered rights of salmon fishings?

Quite so; if I recollect rightly, in the investigation before the Committee of the House of Commons on the Ness and Beauley Bill, there were weir shot fishings near Inverness, and that miles and miles above there were net and coble fishings by other parties. There are places which the fish never reach till they are unfit to be killed.

2714. When you get into the breeding district that is perhaps the most important district to be preserved?

Yes; I would not allow a net to be used there.

2715. Even for the purpose of taking trout or other things by a person having no interest in the salmon fishing?

I think not.

2716. Lord *Lovat*.] Are you aware that that would deprive some persons of fishings which are held under very old charters?

I believe

I believe, in a money point of view, they would make more money by angling ; it is upon that principle I propose it.

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2717. Lord *Polwarth.*] In those small streams, where persons never can see a fish excepting in close time, how would you propose to give them an interest or induce them to preserve the fish ?

There is no possibility of giving them an interest in salmon.

2718. Would you throw the expense of preserving the fish by means of the police upon the county, and make those gentlemen pay who never received any sort of advantage from the salmon fishings in any way ?

I would impose the duty upon the police of protecting the spawning fish as a matter of public importance affecting the whole community.

2719. Viscount *Hutchinson.*] Are you not aware that in Scotland one moiety of the expense of the county police is paid out of the Consolidated Fund ?

I was not aware of that.

2720. Being informed of that fact, do you think there is anything unjust or unfair in the police being employed to protect the salmon spawning in beds in the upper waters when one-half of the expense is paid by the country at large ?

Under any circumstances I think it a most legitimate duty for the police, when it is considered that destroying the salmon is doing an injury to the nation at large.

2721. Lord *Polwarth.*] In those districts would you regulate the net fishing so as to prevent people using nets for the capture of all sorts of fish, including salmon ?

I would strongly recommend that netting for salmon should be prohibited in fresh waters, saving the lowest chartered fisheries. I do not exclude the other charters. I think the fresh waters above that point are to be used solely as nurseries, and believe the chartered fisheries above would make much more money by appropriating those fisheries solely to angling purposes ; a vast deal of good would be done, for the summer fish that were not killed by the anglers would be the most valuable early spawners.

2722. Viscount *Hutchinson.*] When you say that you would advocate allowing to anglers a month or so beyond the time allowed for net fishing, would you restrict that to fishing with an artificial fly, or would you allow fishing with a worm ?

I would not allow ground fishing in the latter part of the season ; I would limit the latter part of the season to fly fishing. I would allow the use of ground baits up to the time that the nets stopped, and the latter part of the season I would confine to fly fishing.

2723. Lord *Polwarth.*] During that time you would prohibit the use of the minnow ?

Minnows, worms, and everything ; it would be a terrible sacrifice to give up the worms in the spring, but I think that would not embarrass the thing at all. I would allow angling by all modes up to the time that net fishing ceased, and after that the indulgence to anglers should be confined to the use of the fly.

2724. I think you have stated that you would recommend that the gaff should not be allowed ?

I would recommend that the gaff should not be allowed ; no doubt it would place many anglers in the spring in a predicament ; nevertheless I think it would be very advisable in order to prevent the killing of kelts.

2725. At such a place for instance as Castleconnell, would it not be rather difficult to land a fish in one of the punts used there with a landing net ?

Yes, for it requires a very quick snatch with the gaff to be secure of the fish ; no doubt an inconvenience would arise at some place, but I think it is a great object not to allow anglers to kill kelts ; in some places, as your Lordships know, it is now practised to a disgusting extent.

2726. *Chairman.*] You are speaking only of Ireland ?

I am speaking of Ireland.

2727. Lord *Polwarth.*] Is there any penalty in Ireland for killing kelts ?

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There is a penalty at present in Ireland, but it is inoperative; the words are "unclean or foul." The kelt gets as bright as silver, as your Lordships may know, and when the fish is brought before a magistrate, it is a matter of opinion whether it is a foul fish or not with the magistrate. It is difficult to determine a foul fish; doubtless in some positions it would embarrass anglers very much to be deprived of the gaff, because unfortunately the very time that it would be useful to prohibit it, is the time that it would be required to take the strong large spring fish. I thought it a considerable absurdity, that in the Tweed Act the use of the gaff was allowed for grilse and small fish in summer, which could be very well managed with a landing net, and was prohibited at the time it was most required by anglers.

2728. Viscount *Hutchinson*.] Are there not many rivers in Ireland in which beside salmon and grilse or peal, as they are called in Ireland, there are sea trout?

There are quantities of white trout.

2729. Earl *Cawdor*.] What are sea trout?

There are two kinds of sea trout; there is the bull trout, and the sea trout proper, as I may call it. The white trout abounds in many parts of Ireland, and are quite a distinct fish; we have very few bull trout in Ireland; we have them in some places; I have seen them where they have run up together. Yarrell, in his Natural History, gives the marks very distinctly, and they are exactly as he says. In Scotland, I understand, the bull trout prevail generally, but we have them in comparatively few waters in Ireland; we have an immense quantity of white trout, as we call them in Ireland; I have known an angler, with a single rod, kill as many as 125 in a day, which he thought a great exploit. Strange to say, the white trout prevail in Ireland only in peat waters; we, in our definition, call them salmon, to bring them under the laws and regulations relating to salmon; there is no license duty for catching non-migratory trout, but there is for catching white trout.

2730. Viscount *Hutchinson*.] Have you any reason to suppose that the presence of those trout in the rivers in large numbers is injurious to the breed of salmon?

I know many whose opinions are entitled to great weight hold that opinion, but I have always been a little sceptical upon it myself, because I think that the kelts of salmon, if they had not the white trout to eat, would devour a great deal of their own fry. I have killed hundreds of salmon with their own fry; it is a very good bait; there is no better; I have always questioned the policy of eradicating white trout; in some instances it may be quite right to keep the balance between the animals, but I think it was intended that there should be certain proportions of each; I doubt whether it would benefit salmon fisheries to annihilate the white trout.

2731. Lord *Polwarth*.] Are you speaking of the bull trout or the sea trout?

The white trout; I believe the bull trout is a very voracious fellow, and does a great deal of mischief.

2732. Lord *Lovat*.] Do you find the bull trout in Ireland of all sizes, small as well as large.

Yes.

2733. Lord *Polwarth*.] Have you known differences of opinion whether the par is the fry of trout, or the fry of salmon?

The par is the young fish before it has descended to the sea, whether it is trout or salmon.

2734. Is not there a difference between the par and the smout?

It is a par till it gets the migratory coat. The difference is merely in point of age. I proved it myself, by breeding from the shell in tanks in the house. I brought them up to smouls.

2735. Viscount *Hutchinson*.] Do you think it would be advisable, in any legislation for Scotland, to have the same protection for trout that you have for salmon.

Certainly. I think there ought to be the same protection for all. They are mixed up together in the same water, and I think there should be the same protection.

2736. Do

2736. Do you consider that the brown, or non-migratory trout, is very destructive to salmon?

I do not consider that it is very destructive. I have seen a great deal of the ova of salmon in the non-migratory brown trout. My opinion is, that the ova found in the stomachs of non-migratory brown trout would have been lost, whether they had eaten them or not. I think they are ova that the fish, in depositing, have failed to cover with gravel, and it has floated away. I do not think the brown trout ever pokes the ova out of the gravel with its nose after it is deposited.

2737. Earl *Ducie*.] Are not great quantities of ova disturbed and carried away in floods.

Yes. If you look at salmon spawning in two or three feet of water, running with a strong current, it is marvellous how they can cover any of it. I have tried it myself. I have got ova in my hand, and put my hand into water, in a stream not six inches deep, but I never could succeed in covering one bit of it.

The Witness is directed to withdraw.

Adjourned to Tuesday next, at One o'clock.

W. J. Ffennell,
Esq.

16th June 1860.

Die Martis, 19° Junii 1860.

LORDS PRESENT:

LORD STEWARD.

Earl CAWDOR.

Earl DUCIE.

Viscount HUTCHINSON.

Lord COLVILLE of Culross.

Lord POLWARTH.

Lord LOVAT.

Lord STANLEY of Alderley.

THE LORD STEWARD in the Chair.

MR. JOHN HECTOR is called in, and examined.

Evidence on the
Salmon Fisheries
(Scotland).

Mr. J. Hector.

19th June 1860.

2738. *Chairman.*] ARE you tenant of salmon fishings on the sea *ex adverso* certain lands in the county of Kincardine?

Yes.

2739. I believe you commenced salmon fishing a good many years ago?
In 1819 or 1820.

2740. What was the mode of fishing that you then employed?
Coble and net, commonly called stell net fishing.

2741. How long did you continue to fish by means of the net and coble?
Until 1827.

2742. And then you introduced stake or bag nets?
Bag nets; and I also introduced fly nets, similar to stake nets. The bay of Nigg is not adapted for stake net fishing.

2743. What was the state of the fishings when you became lessee of them?
There were no fish taken.

2744. Did you give a rent for those fishings before fish were taken?
The rent was 7 *l.*, 12 *l.* and 20 *l.* for a lease of 12 years; if I mistake not, we established the fishery there.

2745. What is the present state of those fishings; are they productive or otherwise?

Yes; a good deal of fish are taken there.

2746. Do you think that the consequence of your taking a considerable quantity of fish there is to diminish the quantity taken in the river?

I have no hesitation in saying that the fish taken in the sea cannot go to the river; but we take many fish in the sea that will not go to the river.

2747. You believe that all the fish which you take would not go to the river, even if you did not take them?

That I am perfectly satisfied of.

2748. *Earl of Cawdor.*] What is your reason for thinking that?

Because they return from the rivers as well as go to them; they go to the rivers' mouths along where the tide is. Plenty of them will go to the rivers' mouths in the summer season; but they will not take the rivers when the water is small and heated by the sun. They will ascend the river as high, perhaps, as the flood goes, and then fall down again; whenever the fish going along the river feel the warmth of the water they fall down again into the sea.

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2749. Lord

Mr. J. Hector.
 19th June 1860.

2749. Lord *Colville* of Culross.] Have not all the fish that you take in stake nets along the shore, roe in them?
 Less or more.

2750. Do not you imagine that they are fish preparing to spawn?
 They may, but not at that season of the year; not in the fore part of the season.

2751. Do the fish spawn in the month of November?
 The month of November is the principal season.

2752. You think that those fish are not on the way to the river when you catch them in the fore part of the season?

I should say not; they may be on their way to the river, but I do not say that they will ascend the river for the purpose of spawning.

2753. Do not you admit that all salmon go into the rivers for the purpose of spawning?

I could not say whether they do or not. I dare say the salmon go into the fresh water to spawn, at the end of the season, but it is my candid opinion that, in the fore part of the season, the fish ascend the rivers not for the purpose of spawning.

2754. Do you think that any salmon spawn in the sea?
 I think they do.

2755. Did you ever find one spawning in the sea?
 No. Judging by the quantity of fish that I have seen in the sea, I should think they could not all go into the rivers.

2756. *Chairman.*] Have you ever found any smolt or salmon fry in the sea?
 I have.

2757. Lord *Colville* of Culross.] Have you ever found a fish very near spawning, in the sea?

I have, near the end of the season, after the month of September, or the end of August. Since Home Drummond's Act, I think our fishings have improved; formerly, we fished from the 20th of December to the 20th of September.

2758. Do you think that those fish that are very full of roe would spawn in the sea if they could not get to the rivers?

I cannot say; I have not tested it. My opinion is that if all the fish came from the sea into the rivers for the purpose of spawning, the rivers could not contain them. The sea is teeming with fish; I have seen great numbers in it.

2759. Do not you think those fish that are full of roe are prevented from going into the rivers, and that is why they are found so full of roe in the sea; that they cannot find their way into the rivers, or are prevented by stake nets?

They are not prepared for spawning till the end of the season. My opinion is that the fish taken in the summer season are not on their way to the rivers for the purpose of spawning; that is my candid opinion; and we kill a great deal of fish in the sea. I have no hesitation in saying, from my experience in fishing for 40 years, that they would not go to the rivers. I very often see fish ascend the river, as far as the river is cooled by the flood tide, going up the river, and when the water gets heated they fall down again into the sea.

2760. *Chairman.*] Does it consist with your knowledge that experiments have been made with a view to the propagation of salmon in salt water, and that those experiments have failed, and the ova never have become productive?

Both in salt water and fresh water. I am afraid it will not succeed; that is my opinion.

2761. I asked you whether you were aware that experiments had been tried to propagate salmon in salt water, and that those experiments had not succeeded, inasmuch as the ova had not produced the young salmon?

They have not succeeded.

2762. Are

*Mr. J. Hector.*19th June 1860.

2762. Are not you aware that those experiments have succeeded frequently in fresh water ?

In bringing the fish to life, they have succeeded.

2763. Would not that tend to show that it is impossible that salmon should propagate in salt water ?

There may be different qualities of fish. There may be sea fish and there may be fresh water fish.

2764. Could your fishings be carried on by means of sweep nets ?

Not any fishing which I have just now on the coast. Where the water is shallow, it may be done by sweep or stell nets ; but where the water is deep, and the rocks precipitous, it cannot be done.

2765. Had a falling off in the take of salmon occurred before the introduction of bag nets ?

Yes ; I think the fishings on the coast and in the river commenced to fall off from and after 1822 and 1823. I am not exactly certain which of the two.

2766. How do you account for that falling off ?

I could not tell exactly. They did fall off in the rivers.

2767. Did you cease to fish in consequence of the falling off in the take of salmon ?

In the river I did.

2768. In what year was that ?

About 1830, if I mistake not.

2769. Was that before bag net fishing was practised in the sea ?

The lease that I had expired in 1830. I might have dropped it earlier, if I had thought proper ; but in working out that lease, of course I was obliged to continue. I may mention that for the fishings on the Dee, belonging to Mr. Duthie, we paid at one time 140 *l.* before the bag and stake nets were introduced on the coast. Those fishings fell down, and were not worth 20 *l.*

2770. Lord *Lovat.*] Did not you catch a great many fish by the net and coble, when you fished in that manner ?

Yes.

2771. Did not you sometimes, on the coast, get large hauls with the net and coble ?

In the mouth of the river and on the coast also.

2772. In the bag net fisheries you got large hauls, did not you ?

Yes ; but not by sweep nets and stell nets. It depends entirely upon the water. When the weather is very favourable, and the Lea smooth, very large shots of fish are got.

2773. How many did you ever see taken at a haul in the day ?

I have killed as many as 500 or 600 in one day, but that is a very rare catch. Many times I have taken perhaps not even 12 or 20. It would depend entirely upon the weather.

2774. *Chairman.*] Was the quantity of salmon taken in the seven years ending 1824, considerably smaller than the quantity taken in the years ending 1796 and 1803 ?

I could not say. I could not give a statement of the weight of fish before the season of 1836 ; but I find, from 1836 to 1859 inclusive, there is very little falling off in the weight of fish. Even in this present season I have got as good fish as I killed in 1836 ; I can find no decrease in the weight of salmon nor in the quality of the fish. Every season is not alike in that way. The fishing is very fluctuating indeed ; it depends a good deal upon the seasons.

2775. Has the falling off continued down to the year 1859 ?

No ; not on the sea-coast. I think there is no decrease in the sea fishing.

2776. Lord *Lovat.*] Have you increased the number of your bag nets ?

I have ; but we do not at all times increase the number of fish by increasing the quantity of nets. It depends entirely upon the situation of the coast and the strength of tide.

(135.9.)

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2777. Does

Mr. J. Hector.

19th June 1860.

2777. Does not increasing the number of your nets give you a greater chance of catching fish ?

Yes ; but they might interfere with nets closer at hand, where the fish may be taken to more advantage. When the tide is very strong a bag net does not do much good. It is only close in-shore where the bag net takes most of the fish.

2778. *Chairman.*] Is the annual take of salmon very fluctuating ?
Very.

2779. Can you state what the amount of those fluctuations has been ?

I have a statement here which will show. When I commenced fishing with the net and coble in the Bay of Nigg, the produce was about 80 barrels of fish, each barrel weighing 436 lbs ; and after the introduction of bag nets as high as to 120 barrels. From the season of 1836, for five years, the average quantity of salmon taken upon my present fishings was 2,620 and 4,666 grilse. The average for the last five years, 1859, 1858, 1857, 1856 and 1855, was 3,466 salmon and 5,661 grilse, showing an increase of 1,236 salmon and 985 grilse.

2780. Lord *Colville* of Culross.] Do you think that increase is in consequence of your fishing more closely, or from the salmon being more numerous on the coast ?

It may be from there being more salmon on the coast.

2781. Do you fish more closely than you did ?

I do ; I have no hesitation in saying it is an advantage. The increase may arise from the greater quantity of fish upon the coast, and the more spirited way of catching them also.

2782. Are you acquainted with any part of the coast of Scotland on which bag and stake nets are thicker than they are between Aberdeen and Stonehaven ?

I could not answer the question ; salmon fishers wish to take salmon to the greatest advantage possible.

2783. Is not there a net, every 200 yards, nearly along that coast ?

Yes, perhaps not 100, and perhaps not 50 yards ; the distance that they put their nets in is according to the ideas of practical parties.

2784. Is it not the fact that that coast is very much fished ?
Yes.

2785. To what river do you think the fish belong that you catch on that coast, the Dee, or the Don, or the south rivers ?

I could not say, the fish are so very similar ; it is hard to say what river they belong to ; or they may be sea fish altogether.

2786. Lord *Stanley* of Alderley.] Do you think there are salmon that never go up the rivers at all ?

I think so.

2787. Lord *Colville* of Culross.] Are the fishings on the coast, with which you are connected, chiefly held by charter ?

The fisheries that I have are held from the Crown.

2788. *Chairman.*] Do they belong to the town council of Aberdeen ?
No, the bay of Nigg only.

2789. Under what lease are the fishings of which you are the tenant now held ?

They are held from the Crown.

2790. Lord *Stanley* of Alderley.] For what period ?
Two years.

2791. Terminable in 1861 ?
Yes.

2792. Earl *Cawdor*.] Did you take that lease from the Commissioners of Woods and Forests ?

No, my proprietor have a lease, I am a sub-tenant.

2793. *Chairman.*]

2793. *Chairman.*] The fluctuations of which you have spoken are not confined to salmon, but extend to white fish of almost all descriptions?

Yes.

2794. The supply of the latter has been very abundant this year, has it not?

Yes.

2795. Lord *Stanley* of Alderley.] Are those fishings, of which you have spoken, held under lease from the Crown terminable at the same period, or are any of them held for different terms?

The same period.

2796. All terminable in 1861?

Yes.

2797. *Chairman.*] Do you think the take of salmon depends very much upon the state of the weather?

Entirely upon the sea coast.

2798. Will you explain more fully your views upon that point?

The reason is, that in stormy weather, the wind blowing from the seaward makes too much surf, bag nets will not stand; and in the fishings, where they would have fished with sweep nets, it cannot be done when the sea gets very rough; the wind is blowing inward makes too much surf in the sea, and nets will not then take fish, and they cannot be fished, the boats cannot get out.

2799. Do you think, under ordinary circumstances, that the fish hug the shore, as it is termed?

It is my opinion that they emigrate from one part of the coast to the other; they go along with one tide and return upon the other; they move along the coast with the flux and reflux of the tide.

2800. Do you think that many salmon keep so far out to sea as to avoid your nets altogether?

In my opinion we get a very small quantity of the fish in the sea, considering the quantity there.

2801. Lord *Stanley* of Alderley.] Did you ever hear of anybody who caught a salmon out at sea by any mode of fishing?

No, it has not been tried.

2802. Are not nets tried for other fish on the sea in which salmon would be taken if they were there?

It depends upon the size of the net whether you will take salmon; herring nets will not take salmon.

2803. *Chairman.*] Is the water sufficiently deep under your bag nets to permit the passage of salmon?

Yes.

2804. Lord *Colville* of Culross.] How far do your bag nets go out into the sea?

On the coast, where I fish, it is so much exposed to storms, and there is so strong a tide, that I do not extend them far to seaward; perhaps not over 150 yards.

2805. What depth of water is there at the end of your bag nets?

From 30 to 100 feet, the rocks are very precipitous.

2806. And you think it would be impossible to fish that coast by any other mode than by bag nets?

Yes.

2807. Lord *Lovat.*] How many bag nets have you?

Twenty-seven in the sea at one time.

2808. In what space?

In three miles.

2809. Lord *Colville* of Culross.] Is that in addition to stake nets?

I have no stake nets, the water is too deep.

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2810. *Chairman.*]

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2810. *Chairman.*] I think I understood you to say, that you only take the fish that swim near the surface, in your bag nets?

Yes.

2811. Lord *Stanley* of Alderley.] Would it be possible to observe the Sunday slap in your bag nets?

Not at all times.

2812. Earl *Cawdor.*] Have not the fish a constant passage under those bag nets?

Yes; if they were doing so at all times we could not take them; it depends upon the state of the atmosphere; the fish may be on the surface, and they may be deep.

2813. I understand you to say that you fish in water 100 feet deep?

Yes.

2814. What is the depth of your bag nets?

From 15 to 17 feet.

2815. Then there must be a great depth of water below the bag net?

Yes; it is only the fish that swim on the surface that are taken.

2816. Earl *Ducie.*] Is it not the general habit of salmon to swim high in the water?

It depends upon the state of the weather and the atmosphere. I may explain that in a clear day, with a very bright sky, the fish are seen upon the surface, and then we get the most fish; but when the wind comes round the land and blows off shore the fish is much nearer to the bottom, and then they are not taken by a bag net. I can state that on account of the great deficiency in the quantity taken at those times.

2817. If it were not the general habit of salmon to swim pretty high, would not you devise some means of catching them when they were swimming at the lower depth, by making your bag nets deeper?

The tide is so very strong that they would not take any at all; there would be so much stress upon the nets that they would not stand perpendicular, and would not be effective in taking the fish.

2818. *Chairman.*] Are many of the fish taken in your bag nets damaged in stormy weather, so as to become unsaleable?

Very few; in stormy weather the nets are dropped and are not in a fishable state; it is only in fine weather that we take any quantity.

2819. Do you take any or many foul fish in your nets?

Very few.

2820. No smoults or small fry?

No, our meshes are too wide.

2821. What is the size of the mesh of your bag net?

The smallest is three inches and a half.

2822. Are the fish taken in your nets on the sea coast more valuable than fish taken in the river?

I should say so.

2823. And command a higher price in the market?

I should say so.

2824. Should you be able to tell the difference between a fish taken in the sea and a fish taken in the river?

Yes; I do not mean to say that a fish taken at the river's mouth, or that has been a few hours in a river is inferior to a sea fish; but if a fish has been in the river for 24 hours they are easily distinguishable.

2825. Lord *Colville* of Culross.] Have you had any experience of river fishing in fresh water?

I have had.

2826. Do not you think that a fish that has been a week in fresh water is as good as the day it came into it?

Not according to my taste.

2827. Lord

2827. Lord *Stanley* of Alderley.] Have you ever taken a foul fish or a kelt in your bag nets?

Very few.

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2828. How do you account for that ; if the fish live in the sea and spawn in the sea, how is it that you do not occasionally catch a foul fish ?

It may be that the fish are weak in themselves and swim underneath the nets, and we do not take them ; they go out to seaward, it may be ; I have not had any experience of that ; but, however, we kill very few of them. I do not suppose that this season I have killed above two or three at the utmost. My men have orders if they catch them to mark them, and allow them to go away that they may be known if they are again taken ; but I have never found any of them.

2829. If you are correct in your opinion that the salmon spawn in the sea, how do you account for it that you have not more often taken spent fish, as well as fish before they have spawned ?

They perhaps may be of good quality before they come in shore. If they spawn in the sea I do not suppose that they spawn close in shore ; it is my opinion that if they do spawn in the sea it is in the deep water off the shore.

2830. It is your opinion that salmon spawn in deep water ; do you imagine that they lay their eggs at the bottom of the deep sea ?

If they do spawn in the sea they must spawn there.

2831. I thought you stated to the Committee your decided opinion that salmon do spawn in the sea ?

Yes, it is my opinion.

2832. Did you ever hear of anybody who caught salmon fry in the sea ?

Yes, I have done so.

2833. By what means ?

By stell nets, in the Bay of Nigg.

2834. Were they par, or what description of fish were they ?

What we call smoults.

2835. Do you believe par to be young salmon ?

I have not had experience with them.

2836. What do you consider the young salmon to be. Did you ever see a salmon when it was first spawned ?

I never took any but in the smolt state ; that is when they were silvery in their appearance ; I have taken smoults very frequently in a stell net in fine weather, in the month of May.

2837. Those are the smallest fry that you have ever taken ?

Yes.

2838. Do you consider that to be the shape which the salmon fry first assumes ?

No, it cannot be ; they must come from the roe of the fish ; of course they cannot be smoults until such time as they grow from the small minnows into smoults.

2839. Do you think that as soon as the fish are developed from the ova they assume the form of silvery fish like a smolt, or what form do you consider they take ?

I could not answer the question ; I have not had experience.

2840. Earl *Cawdor*.] Is not a smolt a fish of a certain age ?

It must be.

2841. Lord *Lovat*.] How old do you consider a smolt ?

It is supposed to be two years ; I could not say ; I have not had experience ; I have been more accustomed to sea fishings than river fishings ; I do not know so much about spawning ; I have never tried experiments.

2842. You never caught any par which you consider to be one year old ?

No, I never found any of the salmon tribe in the sea smaller than a smolt.

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2843. *Chairman.*] Do you think the supply of salmon has been more regular as well as larger since the introduction of stake and bag nets?
Yes.

2844. So that in your opinion the public has an interest in the maintenance and preservation of these fixed engines?
That is my opinion.

2845. Inasmuch as they derive a larger supply of fish of a superior quality?
Yes, the supply of fish is more regular. Formerly, when the nets were wrought upon the coast, it was only in fine weather that they could get to sea to take salmon, and then they caught them in large quantities; perhaps for a week they would not get any fish, and then the fish came in such quantities that they glutted the markets.

2846. Has the price of salmon in the local markets been more steady of late years than it used to be?
Yes.

2847. *Earl Ducie.*] You say that the stake and bag nets give a more regular supply; have not you stated that in very bad weather it was impossible to get to the bag nets sometimes?

Yes, but that might be perhaps only a day or two.

2848. And it might be for a longer time?

It might be, but we can go to manage a bag net when we could not go and take the fish with a sweep net; a man can go through the surf with an empty boat, when he could not go out with a net.

2849. During that bad weather, which prevents your fishing with a bag net, the river fishings can be still carried on?

Only in the river, not in the sea.

2850. *Earl Cawdor.*] You could also fish with stake nets?

Yes, we can fish with bag nets also when they cannot take them with a sweep net.

2851. *Lord Colville of Culross.*] What do you consider an ordinary take in one of your bag nets in the 24 hours?

I should say from 10 to 20 salmon.

2852. *Chairman.*] Do you think that great injury has been done to the breed of salmon by the imperfect preservation of the breeding fish in the rivers?

Yes; the more fish are preserved for breeding when they are in a certain state, the more we look for the progeny.

2853. Do you believe that grilse breed the first year?

No.

2854. Will you give your reason for that opinion?

The reason is, that I can find grilse in the first fortnight of September to average about six pounds weight; and I have found salmon at the commencement of February, when the fish have all spawned, to be an average of seven pounds only; therefore, if the grilse is the actual fish that we can get in the spring, they cannot have spawned that season, because the breeding fish have not descended the river.

2855. Do you believe the salmon usually return to the rivers in which they are bred?

I could not say.

2856. *Lord Stanley of Alderley.*] Did you ever find spawn in grilse?

Yes, but very small; I have found roe, but not in a state that it would be in for spawning.

2857. If you find roe in a grilse, is it not probable that that fish would breed?

No.

2858. Upon what reasons do you ground your opinion that grilse do not breed?

The

The reason that I ground my opinion upon is according to the weight of the fish. I say that the grilse which I take in the first week of September average about six pounds; and the salmon I take in spring average about seven pounds; then the breeders that go up the river at the end of the season run from 16 to 18 lbs. weight.

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2859. If you find roe in grilse can you possibly have stronger evidence that those fish breed?

Not in that season; the roe is too small; it has not come to maturity.

2860. *Chairman.*] When do the salmon ascend the river for the purpose of spawning?

At the end of August and in September principally.

2861. The ripe spawn is not found in them at other seasons; is that so?

It grows gradually; there is roe in the female salmon when we commence on the 1st of February.

2862. Lord *Lovat.*] Does not the roe increase in size as the season advances? More especially in salmon.

2863. And in grilse also?

I do not think it grows so much in proportion in grilse as it does in salmon.

2864. Lord *Colville* of Culross.] Do you find that the grilse have fallen off in size the last few years?

The last three years they have.

2865. How do you account for that?

The reason is that there was no late grilse; the greater part of the grilse that I have had for these three last years were taken in the forepart of the season, hence the deficiency of weight. I find that the floods in the river often put the fish off the coast altogether; last season the grilse fell off after the middle and end of June, when the fish should have been very plentiful, and in July we did not have any; hence we did not get the large fish, but only the small ones.

2866. Was there the same cause the year before?

The year before, and the year before that; heavy floods invariably put the fish off the coast; if the salmon are not taken in the sea they are lost altogether.

2867. Earl *Ducie.*] Was not there a corresponding increase in the take of salmon at that period in the river where those heavy floods occurred of which you speak?

No.

2868. Were the floods too heavy for the fish to get up the river?

It was not on account of the largeness of the river, but of the bad state of the water.

2869. *Chairman.*] Do you frequently take salmon of a considerable size, 17 or 18 lbs. weight?

At the end of the season.

2870. Do you think fish of that description reappear the following season?

In very small numbers.

2871. How do you account for their disappearance?

They are lost, it is my opinion; they do not make the land; they are devoured by larger fish, or do not come upon the coast somehow. I can find in the month of September the fish that we leave off taking average from 16 to 18 lbs. weight, and the greater part of the salmon the next season we commence getting do not average above 7 lbs. weight. I dare say this season, so far as it has gone, I have not got above six or eight fish of that size.

2872. Lord *Stanley* of Alderley.] What age do you consider these large fish are?

In the third year.

(135. 9.)

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2873. You

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2873. You think that you seldom find a salmon more than three years old?
 Very rarely. I consider that we only get grilse and the first year of salmon; the third year of salmon we only get very seldom.

2874. Do you believe that all the salmon that live longer than the three years, or the greatest part of them, disappear somehow or other at sea?
 Yes; I do not say that they die, but they are lost, and do not return.

2875. Lord *Colville* of Culross.] Have you many fish destroyed on your coast by seals, grampuses, and porpoises?
 Not many.

2876. Are not they so thick about there as they are about the Tay?
 Porpoises are.

2877. Are they destructive?
 They often drive fish off the coast.

2878. Do you think it possible that the large salmon go to other rivers, such as the rivers in Holland, in which the fish are generally of greater weight than they are in the rivers of Scotland?

I could not give an opinion; I know, however, that they are lost, and do not return; hence, if they are not taken in the season, they are lost to the community.

2879. It being an admitted fact that the fishings in most of the rivers in Scotland have fallen off, can you attribute that falling off to any cause?

I attribute the falling off principally to the great draining into the river, and the use of artificial manures. In my opinion, it is the bad quality of the river; after a flood of rain, it is not as it was formerly; the water now descends all at once into the river, bringing a large body of impurities into the river, and I think that is the means of putting the fish off the coast. Some 40 years ago, the fish used to be very plentiful in the rivers, and now it is quite the reverse; it must be that the state of the river is the cause of that. The salmon is a pure swimming fish, and if the water is not pure the fish will not go into it; even if the sea is muddy along the coast the salmon will not go into it; they keep in the clear water.

2880. Lord *Stanley* of Alderley.] Do you think it is possible that one reason why there may not be so many fish in the rivers is, that they are caught before they get to the river on the coast?

It may be the case with part of them; of course the fish killed on the sea cannot be expected to be found in the river.

2881. If you catch them all in the sea there would be none in the rivers?
 We never could catch all the fish in the sea.

2882. *Chairman*.] Do you think that a sufficient number of salmon escape your bag nets and stake nets, and get up the rivers for the purpose of keeping up the breed?

Yes, if one-half of the spawn comes to maturity we would have plenty of fish; there are great numbers of breeders preserved.

2883. If the spawning fish were properly preserved in the rivers, you think that the rivers would be well stocked?
 Yes.

2884. Earl *Cawdor*.] Do you think that over-fishing at the mouths of the rivers has anything to do with the decrease of salmon in the rivers?
 No; we cannot over-fish in the season.

2885. I do not mean on the sea-coast, but at the mouths of the rivers?
 No, nor in the rivers during the fishing season.

2886. *Chairman*.] Do you think that too many salmon are taken by means of sweep nets?

In either way I do not think too many salmon can be taken during the fishing season; they never can take the quantity; the salmon are teeming in the sea, and if they come upon the coast, it is my opinion that we only get a very small part of them.

2887. Lord

2887. Lord *Colville* of Culross.] Do you think that cruives in the rivers are very destructive to salmon?

Anything that intercepts the fish may be destructive.

2888. Do you think that cruives in the rivers ought to be prevented?

I do not think that they are destructive in any great measure. There were cruives fifty, sixty or a hundred years ago, when the fish were very plentiful in the river. If they are destructive now, they would have been destructive then; there was an immense quantity of fish in the rivers in those days; any dykes or any cruives, whatever they may be, that interrupt the run of the fish in the river are objectionable; but still the cruives are not destructive altogether, because the heck is taken out every Sabbath, and after the fishing season is over, they are taken out altogether, to make a free course for the salmon, and they cannot interfere with the descent of the smoults.

2889. Lord *Stanley* of Alderley.] Was not the period of which you have spoken, when you say that salmon were so much more plentiful in the rivers than they are now, the period before any bag nets or stake nets ever existed upon the coast?

I think I have answered that question before, that the falling off was very considerable before the bag and stake nets were introduced on the coast.

2890. *Chairman*.] And probably before the land was drained so extensively as it is now, before any chemical or other manufactories were established on the banks of the rivers, and before the sewage of towns was discharged into them?

There were none of those things, and the rivers were pure.

2891. To all those causes you attribute the decrease of salmon in the rivers?

Yes.

2892. Lord *Stanley* of Alderley.] Are not there a great many rivers in Scotland on whose banks there are no manufactories or towns or artificial manures used: take the Spey, for example?

The Spey is a very peculiar river.

2893. Are there any manufactories or towns on the Beauley?

I am not aware; I was never there.

2894. Are there any on the Ness?

I am not aware.

2895. Are there any on the Nairn?

I am not aware.

2896. On the Spey?

Not so far as I know.

2897. Are there any upon the Findhorn?

I was never there.

2898. Lord *Colville* of Culross.] You said just now that the Sunday slap was observed with respect to cruives; do not you think it would be fair that it should be also observed with respect to stake and bag nets?

It could not be carried into effect.

2899. If it is not possible to be carried into effect with bag nets, do not you think that it would be fair that your nets should be removed the same number of days before the end of the season as would make up the number of days that they would have been off supposing the Sunday slap had been observed?

I may lose a great deal of valuable fish, and they would be lost to the community.

2900. It is not fair that you should be allowed to fish more than the river people, is it?

It is quite fair in the sea. I think the more fish is taken in the sea the greater advantage it is to the community at large.

2901. And the greater advantage to the people up the river?

They would not go up the river, as I think I mentioned.

(135.9.)

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2902. *Chairman*.]

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2902. *Chairman.*] You believe, as far as the public are concerned, that the deficiency in the quantity of salmon taken in the rivers is more than compensated by the increased quantity taken in the fishings on the sea coast?

Yes; I consider the state of the Dee very impure; there is a great traffic in the mouth of the river, and a great quantity of all sorts of sewage is discharged into the river. It is a wonder that any fish are taken in the River Dee; there are sailing vessels and tug-boats going about every hour in the day, and that stops the fish from going up the river.

2903. Lord *Stanley of Alderley.*] Is it your opinion that it is impossible to over-fish, and no matter how large a quantity you take, that the breed is not likely to be injured by excessive fishing?

We reserve plenty of breeders at the end of the season during the close time.

2904. *Chairman.*] Do you believe that the fishing season begins sufficiently soon?

I think the time of commencing on the 1st of February is very suitable.

2905. When, in your opinion, ought the close season to commence?

I think it might be advantageous to give the close time a fortnight earlier perhaps, dropping the fishing on the 1st of September.

2906. Lord *Stanley of Alderley.*] Why do you think it would be advisable to commence the close time sooner, if you think that already quite a sufficient number of fish get up the rivers for the purpose of breeding?

We might increase the number.

2907. You think there might be more breeding fish by allowing less fishing or by allowing more fish to ascend the rivers earlier?

If we reserve a sufficient quantity of breeding fish to stock the rivers it is quite suitable. I have no hesitation in saying that after we drop fishing there are more fish for breeding purposes go into the rivers than are sufficient to supply the rivers with fish, but poaching is carried on in the rivers to that degree that they take the greater part of them. The fish go up for the purpose of spawning, but those parts of the river being very small the poachers take the whole of them, or the greater part of them.

2908. In point of fact, you think that a sufficient number of fish ascend the river to breed, in spite of all the difficulties which exist in their way?

There are more just now; but I say that they might be increased, by giving a fortnight more to the close time.

2909. If you think they might be increased, do you mean that there is not now a sufficient supply?

The people on the rivers complain that they have not a sufficient supply. My quantity is increasing.

2910. Earl *Ducie.*] Am I to understand from your preceding evidence, that it does not much matter what quantity of fish goes into the river at all for the purpose of spawning?

Fish in a full state.

2911. Lord *Stanley of Alderley.*] If salmon breed in the sea, it cannot be material whether they ascend the rivers or not, can it?

We cannot prove whether they come to maturity in the sea.

2912. You are not decided in your opinion as to the fact that salmon do breed in the sea, at least so as to come to maturity?

It is only by the quantity of fish, that I should suppose that they do breed in the sea. I think I have mentioned that before.

2913. Earl *Ducie.*] Are you aware of any other animal that deposits its eggs or propagates under such circumstances that they cannot come to maturity?

I should say not; but I have mentioned that there might be sea fish and river fish. The sea fish might come to maturity unknown to us. It can be proved by the smoults of the salmon breeding in the rivers, that they come to perfection; but in the case of sea fish, we cannot prove that.

2914. Are

2914. Are you aware whether any of the scientific gentlemen who have written upon salmon, have held that opinion?

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No; they do not in regard to river fish and sea fish.

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2915. Lord *Stanley* of Alderley.] Is it your opinion that there are two distinct species of salmon, one which frequents the sea, and the other which frequents the rivers for the purpose of spawning?

I firmly believe that.

2916. Lord *Colville* of Culross.] Do you know Mr. Joseph Bissett, who was examined here the other day?

Yes; he came up with me.

2917. He stated in evidence that he knew a man of great experience, who had seen salmon spawning in the tide-way; he was then asked who that man was, and he said it was Mr. John Hector, of Aberdeen; what cases have you observed of salmon spawning in the tide-way?

I have observed two; the flood mark does not at all times go where they spawned; that was the old bridge of Dee, two miles from the river's mouth. The flood tide does at times go above there, in the spring tide.

2918. Do not you think it possible that these might have been two unfortunate fish who were prematurely confined in the sea, because they could not find their way into the river in consequence of the number of nets?

I could not say; they were in the river, but within the flood mark.

2919. Earl *Cawdor*.] With regard to the breeding fish you have spoken of, are you of opinion that a sufficient number of breeding fish get up the rivers and live there during the breeding season to stock those rivers?

They ascend, for the purpose of breeding, at the end of the season.

2920. Do you think that a sufficient quantity of breeding fish escape being caught to stock those rivers?

Yes, provided they are protected.

2921. Do you think that they are sufficiently protected?

No; they are not.

2922. Then in your opinion there is not a sufficient number of breeding fish now getting to the upper waters to stock those rivers?

There is a sufficient number of fish ascending the rivers if they are protected.

2923. Your opinion is that they are not protected, but are destroyed?

They are not protected during the close time.

2924. Do not you think it would be a great advantage if larger numbers of fish could be preserved during the close time?

Yes, that is what I mentioned; that it might be well to extend the close time, and make it a fortnight longer.

2925. *Chairman*.] When should the fishing season commence?

I should say the first of February in my opinion is quite a suitable time.

2926. You think that the fishing season should commence on the first of February, and close on the first of September?

Yes; I think it might be well, as the rivers are said to be the mother streams of those fish, to drop the fishing there in the middle of August; say the 12th of August; and, to interest the upper proprietors in the protection of the rivers, to allow angling to the first of September.

2927. Earl *Ducie*.] So that the river fishing should cease sometime before the sea fishing?

I should say so, if the rivers are the mother streams of the fish.

2928. *Chairman*.] Are you acquainted with the Dee and the Don?

Yes.

2929. Are there many weirs and dams on those rivers?

On the Don there are.

2930. Do you think that those dams are very destructive to salmon?

Any embankment whatever that interferes with the run of the fish is destructive; dam dykes are particularly so when the river is small.

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2931. Three

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2931. There is no slap or opening in dam-dykes, is there ?

There is a little, but not sufficient. When the river is small there is not sufficient to allow the fish to escape.

2932. Have you any further information to give the Committee ?

Only with regard to the prices of fish, and with regard to the quantity taken. I may state that the quantity of fish has rather increased, in my opinion.

2933. I believe you have prepared a table showing the fish taken in your fisheries from the year 1836 to 1859 ?

I have a table showing that the quantity taken upon the sea coast is actually increasing. It is not according to the quantity of fish that is taken, but the quantity of fish that may be taken. There are many parties having fishings on the sea, and in rivers, that may take more fish than others ; it depends upon the knowledge of the fisher whether he has practice or not in taking fish.

2934. I think you said that it was impossible to fish upon the part of the coast where your fishings are situated, by means of the net and coble ?

It is impossible.

2935. Will you be good enough to put in the table to which you have referred ?

The Witness delivers in the following Table :

TABLE of Numbers and Average Weight of Salmon and Grilse caught *ex adverso* of the Lands of Balnagask, Altens, North Loriston, South Loriston, Cove and Caernrobin, being a range of about Three Miles of Coast, in the County of Kincardine, by John Hector, Salmon-fisher, Cove, from 1836 to 1859.

Year.	Number of Salmon.	Number of Grilse.	Number of Barrels.	Average Weight of Salmon.	Average Weight of Grilse.
1836	1,981	2,428	88½	12½	4½
1837	2,120	3,956	105	12½	5
1838	3,040	6,804	159	11½	4½
1839	3,196	4,209	121½	12½	4½
1840	2,766	5,941	133½	11½	4½
1841	3,408	7,572	181½	11½	5½
1842	4,648	12,371	281½	12	5½
1843	3,689	7,874	205	12½	5½
1844	4,699	8,551	215½	11½	4½
1845	4,340	11,499	244	10½	5
1846	4,757	3,744	165	11½	4½
1847	2,706	5,501	132	11½	4½
1848	2,024	7,205	138½	11	4½
1849	2,473	14,862	236	11½	4½
1850	3,244	6,633	157½	12½	4
1851	1,902	4,055	88	11½	4½
1852	2,739	4,783	106	10½	3½
1853	3,255	5,413	140	11½	4½
1854	4,407	7,222	194½	11½	4½
1855	4,384	6,216	167	10½	4½
1856	2,495	4,628	121	12½	4½
1857	3,610	7,044	163½	12½	3½
1858	6,719	5,227	215½	10½	3½
1859	3,805	6,234	142½	9½	3½

The Witness is directed to withdraw.

Mr. GEORGE

Mr. GEORGE GRAY, called in, and examined, as follows :

2936. *Chairman.*] I BELIEVE you are a lessee of salmon fisheries ?
Yes.

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2937. Where are they situated ?

In the county of Kincardine, the Bay of Nigg, and along the coast of Findon, Portlethen, Downies, Commachmore, Newtonhill, and Monduff.

2938. You have been a lessee of salmon fishings for many years ?

Yes, I have some in the county of Kincardine and Morayshire.

2939. Have you any objection to state what amount of rent you pay for those fishings ?

£. 2,740.

2940. Are they all sea fishings ?

All sea fishings.

2941. And fished by means of stake and bag nets ?

Yes, all of them.

2942. Two of your fishings would have come under the Ness and Beauley Bill, would they not ?

Yes.

2943. You were an opponent to that Bill, I presume ?

I never had it in my power to be an opponent, or favourable to it.

2944. You objected to that Bill, did you not ; would it not have injuriously affected your interests in regard to those fishings ?

Most decidedly.

2945. The fisheries to which you have last referred¹ are the Flower Burn fishings and Fort George fishings, are they not ?

Yes, they are on the Moray Firth.

2946. They would have come, you say, under the operation of the Ness and Beauley Bill, which was brought into Parliament this Session ?

Yes.

2947. *Earl Cawdor.*] Is that fishery at Fort George, immediately adjoining the fort ?

Just opposite, *ex adverso* the fort, in the sea.

2948. Is it on the Ross-shire side ?

No, it is on the Inverness-shire side.

2949. Does that belong to the Government ?

Yes.

2950. Are you aware how many stake nets were to be abolished by the Ness and Beauley Bill ?

I am not aware. I know that all the fisheries down to five miles below Fort George and Chanonry Point were to be abolished.

2951. Did you receive any notice that your property was to be taken ?

Never as a tenant.

2952. You never received any notice whatever ?

None.

2953. Did you ever hear of anybody else who received any notice ?

No, what I saw of the Bill I read in the public papers.

2954. Had you no notice served upon you ?

None whatever.

2955. *Chairman.*] How far are the fishings of which you have been speaking from the mouth of the Ness, and how far from the mouth of the Beauley ?

I should say they would be about (I have no official measurement), between
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seven and eight miles from the mouth of the Ness, and about a similar distance, rather more, I think, from the mouth of the Beauley.

2956. Earl *Cawdor*.] Do you mean 14 miles from the mouth of the Beauley?

Yes, more than that.

2957. *Chairman*.] Is it 16?

I should say it was thereabouts; of course I have never made any measurement or taken any notice; it is an approximation.

2958. Are they *bond fide* sea fisheries?

They are *bond fide* sea fisheries, so far as I understand them.

2959. Upon what lease are the Flowerburn fishings held by you and your partners?

I hold them under a lease of eight years.

2960. From Mr. Mackenzie?

Yes.

2961. How many years are still unexpired?

Four after this one.

2962. Does Mr. Mackenzie hold them under lease or under a grant from the Crown?

He holds them under a grant, of which I have a copy; this is a copy of his charter.

The same is delivered in, and is as follows:

TERMS of Crown Charter of Mr. Mackenzie, of Flowerburn, granting Right of Salmon Fishing.

"All and whole the stell and salmon fishing upon the Ness of Chanonry and the shore thereof, on both sides of the same."

The charter is in Latin, and its words are:—

"In totis et integris lie stell et salmonum piscatione super lie Ness de Chanonry et littus ejusdem ex utroque latere ejusdem."

2963. You understand that that charter conveys to Mr. Mackenzie the right of fishing there by any means which he thinks fit to employ?

It certainly conveys to him the right of stell net fishing, but I cannot say anything further.

2964. Have you any doubt that it conveys to him also the right of fishing by means of stake and bag nets?

It is questionable for me to give an opinion.

2965. You have exercised the right, therefore I presume you think you possess it?

Yes, I possess it, and others have possessed it before me; those are the terms of the charter.

2966. Nobody has attempted, hitherto, to interfere with your fishings by means of those engines?

Not in the least.

2967. How do you hold the Fort George fishings; is it under a lease from the same gentleman, or under a lease from the Crown, or whom?

It is under the gentleman who has the charge of the military service.

2968. Lord *Colville* of Culross.] Under the Board of Ordnance?

Yes.

2969. *Chairman*.] Indirectly from the Crown?

Yes; it is the gentleman who has authority from the Board of Ordnance that lets it.

2970. When were there stake and bag nets first established at those fishings? It was before my time, long; I think it was about 1820.

2971. You

2971. You found them established when you became lessee?
Yes, 20 years before that.

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2972. From what you have heard, and from what you have observed, can you inform the Committee whether the fishings are much more productive than they were before the introduction of those nets?

I have every reason to think so. I have not it in my power to give any previous documents showing what has been done at them further than what I have done myself in my time.

2973. If you were deprived, by Act of Parliament or otherwise, of the right of fishing by means of those stake and bag nets, you would not give so high a rent as you do at present, I presume?

No, I could not give anything like the rent. If the stell nets were to be stopped the fishings would be worthless to me or any other person. The stell nets amount to fixtures, but bag and stake nets are considered the most profitable.

2974. Therefore the value of Mr. Mackenzie's property, which I understand you hold under lease from him, would be materially diminished by any such enactment as I have supposed?

Most decidedly.

2975. Lord *Lovat*,] What rent do you pay for your fishings?
£. 585 to Mackenzie of Flowerburn.

2976. To the Crown?
£. 15.

2977. Are there any other stake nets below Fort George, within the proposed limits of the Bill?

I think there is, but I could not be sure.

2978. Do you know what the rents are?
No.

2979. *Chairman*.] Has the produce fallen off the last few years in your fishings?

Not in my time.

2980. Can you produce an account of the quantity of fish taken in the last four or five years?

Yes. This is a document that I received from Mr. Pimm, tacksman of the Chanonry Ness fishings.

The same is delivered in, and is as follows :

—	Number of Salmon.	Weight.	Number of Grilse.	Weight.
		<i>Lbs.</i>		<i>Lbs.</i>
1857 - -	1,483	18,364	6,296	31,192
1858 - -	2,461	27,235	4,663	19,415
1859 - -	2,572	24,227	5,042	21,867
1860, to 9 June	1,293	11,406	17	53

2981. Do you believe that a larger proportion of fish would ascend the Ness and Beauley if they were not intercepted by the stake and bag nets?

I have not the least doubt but they would when they were proceeding up the Firth.

2982. Do you believe, in spite of your stake and bag nets, that a sufficient quantity of fish for breeding purposes still ascend those rivers?

Not a doubt of it, if they were preserved when they went up after our time of closing, even late as it is.

2983. Do you consider that a large quantity pass by or under your nets?

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There is no doubt but that a very large quantity can pass by our nets ; there is about a mile, I should say, or more than that, from the head of any of our nets.

2984. Lord *Colville* of Culross.] You do not use any sweep nets there in that part of the Moray Firth ?

I do not use any sweep nets.

2985. Does anybody else ?

I do not think they do. I never saw any working.

2986. *Chairman.*] Do you believe that a considerable number of the fish which are ascending, or about to ascend the river, swim in deep water ?

Yes, they swim in deep water.

2987. Those that swim in deep water are not caught in your nets ?

No ; if they swim in deep water they are not within the sweep of our bag nets. Our bag nets are set in deep water.

2988. What is the depth of your bag nets ?

About 16 feet.

2989. What is the depth of the channel or part of the sea in which they float ?

It is very much deeper. I could not exactly say the depth there ; I have never been out and measured it.

2990. You have no doubt that many salmon pass under your nets ?

No doubt about that. I have seen a steam-boat coming within a little of it, lying-to to discharge a cargo.

2991. Lord *Lovat.*] Does not the tide run very much into that bay ?

It is a very curious place with regard to tide and eddies ; it is very peculiar.

2992. How does the tide come up ?

It will come up sometimes very strong, and turn at the point ; there is a curious eddy.

2993. Do you know the Riff Bank, which is below Fort George ?

No.

2994. Which side of the Firth does the tide come up ?

The strongest tide, I anticipate, comes up the Ross-shire side.

2995. And strikes into that bay ?

Yes, strikes at the point. I should say the strongest part of the tide would come up there.

2996. *Chairman.*] Do you take any foul or spent fish in your stake or bag nets ?

There have been some there in the early part of the season ; they have caught some foul fish there, but they are invariably allowed to escape.

2997. Do you believe that any salmon breed in the sea ?

That is a very questionable thing to my own mind ; I have no proof either the one way or the other ; I have never been able to satisfy my own mind that they do or that they do not.

2998. Which way does your opinion incline ?

I have been inclined to think, from the circumstance that it is a recognised fact that smoults of salmon will not come to anything but smoults in the fresh water, and whenever fish enter the fresh water they decrease. I consider the salt water is the natural element for salmon coming to maturity ; and hence I might be led to infer, when that is the element in which they grow and come to such a healthy state, that it is possibly not an unreasonable supposition that they might breed there, and drop their spawn.

2999. They deteriorate in fresh water after a certain time ?

They deteriorate in fresh water after a certain time ; that is a recognised fact by every one that I have spoken to or seen upon the subject.

3000. Do

3000. Do you believe that the fish taken at the sea fishings is superior in quality to the fish taken in the rivers?

Yes, I do.

3001. Does it command a higher price in the market?

Yes, it commands always a higher price in the market; the fish on certain parts of the coast command almost the highest price in the market.

3002. Do you believe that a more regular supply is derived from the sea fishings than from the river fishings?

Yes, during the summer; unless there is a fresh in the river to bring them up, the supply in the river must be very limited; but there is always a regular supply from the sea, unless it be very stormy weather in the spring, when they cannot get their nets set.

3003. Do you know whether the price has been more steady in the local markets than it was formerly?

The price has been pretty steady; but so far as my information goes, it has never risen to such a high price as formerly, and it has never come down to so low a rate; there have been better prices of late than there were some years ago.

3004. On the whole, it is your opinion that the public is interested in the maintenance and preservation of the coast fisheries?

I should say they have a better and a more regular supply of fish.

3005. And of a superior description?

They command certainly, by connoisseurs, a higher price when they are in a good state; as to there being anything particularly superior about them, I could not say.

3006. Lord Colville of Culross.] Are not you aware that latterly there have been great complaints among the upper heritors of the river of a falling off in the salmon?

Yes, I have heard strong complaints from them.

3007. Do not you think that that is a serious question for you as well as for them?

It is just a question with me. If they are not taken in the sea they will be taken in the river; it is just a question altogether between the river proprietors and the sea proprietors.

3008. Do not you consider that you are indebted to the rivers for your stock of fish?

I have always held that they breed in the river; but I have no proof that they do not breed in the sea.

3009. If the upper heritors find that they have no chance of getting fish in the open season, would it be worth their while to protect them during the close season for the sole advantage of the sea fishers?

I think it would be a matter of very great consideration to have the rivers properly protected in the close time. I think the want of that is a great evil.

3010. Would it be worth the while of the upper proprietors to protect the river in the close season if they are to get no advantage from so doing?

They certainly have not the same interest in protecting the fish, but they could get the sea proprietors to support them in it.

3011. Do not you think it is worth the while of the sea fishers to propitiate the good-will of the upper heritors?

I think it might be, certainly.

3012. Is that best done by killing all the fish before they get to them?

No, I do not think that; but when the fish are there, and I have never seen it otherwise, it is the bounden duty or the interest of any tenant to take all that he can.

3013. Earl Ducie.] You say the river proprietors have not now so great an interest in the matter as the sea fishers?

They do not catch so many salmon in the rivers now.

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3014. Was not there a time when the interests of the river fishers preponderated?

Yes, a great many which are taken in the sea now, used to be taken in the rivers.

3015. Is it not in consequence of the quantity taken in the sea, that the river fishers have now no longer the same interest in the preservation of the salmon which was taken by them in former years?

They cannot have such an interest.

3016. Lord *Colville* of Culross.] Do you think you have been killing more fish in the last year or two, in consequence of there being more fish in the sea, or because you have fished closer for them?

So far as my experience goes, for a good many years back we have been fishing just the same, with the same means, and with the same strength.

3017. On the coast of Kincardineshire, where you have those fishings, are there more bag net fishings than there used to be?

Not for a good many years back. We have been always increasing since I started in 1835. Of course, when I took a place that had never been fished before, I did not go into that with the same strength and force as I am doing now.

3018. Lord *Lovat*.] How many bag nets have you on the Kincardine coast? I think it is about 30 or 32 that I have.

3019. How many miles of coast have you?

I should say it would be about five or six miles.

3020. Is the bag net fishing a very expensive mode of fishing?

Certainly, a very expensive mode.

3021. More expensive than the net and coble, if the ground could be fished by net and coble?

If the ground could be fished by net and coble, of course; but there is not any ground that I am aware of that can be fished by net and coble that I fish with stake and bag net. There is not any on my ground, with just the exception of one place, that is Woodstone, in Kincardineshire.

3022. *Chairman*.] Does the quantity of salmon taken fluctuate very much?

Yes, very much.

3023. You think there is no permanent falling off in the quantity which you take?

No; of course it fluctuates very much. It is a well-known fact that there are very great fluctuations. I see, in 1851, in one place, I had only 3,550 fish; that is Woodstone; and in 1852, I had 13,600. For 10 years previous to that, so far as I could learn from the statements of Captain Fordyce, who was my proprietor, there had not been an average of three years that it amounted to 5,000 fish.

3024. Lord *Lovat*.] Does that include both grilse and salmon?

Yes; in 1853 it came to 10,200; in 1856, it comes as low as 3,800; and in 1857, 8,550. In 1859, which was last year, it was 9,671. There is very great variation, more so on that coast, I should say, than any other of my fishings that I have.

3025. *Chairman*.] The grilse of one year become the next year's salmon, do they not?

Yes; I hold that, undoubtedly.

3026. Can you trace their growth any further?

No; when we first see them they are about 1 lb. or 1½ lb. When we see them early, we like to see them not very large, because we think it is a sure sign of a good crop.

3027. It is your opinion that after the third year, when they become large they disappear?

They disappear. I never could bring myself to have any idea what became of them. I have never seen or read anything about what becomes of them.

It

It is said that the family increases to extraordinary sizes, but as fishers, we have no earthly dependence but just upon the two families, the grilse and the salmon.

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3028. But looking at the fact that salmon brought from Holland are considerably larger than those caught in the rivers of Scotland, do you think it is possible that after the second or third year they frequent those rivers?

That is a very doubtful question; as it is said, and as I believe too, to a very great extent, they seem not to be the same quality.

3029. *Earl Cawdor.*] Would it be possible that, as the fish got older and larger, they might leave the smaller rivers in Scotland, and frequent larger ones?

It might be, but I could never satisfy myself of that. If I felt capable of giving an opinion, I would say that I would hold as a truth that they did. I have never seen any authority that could be depended upon as to what becomes of them.

3030. *Lord Lovat.*] Do not they get larger fish in the Spey and the Tay, than in the Tweed?

There was once (not in my time) at Chanonry Point, a fish of about 60 lbs., taken some years ago. I remember seeing it; I think it was in Mr. Hogarth's time. We had one of 47 lbs., but those are very rare specimens.

3031. *Lord Colville of Culross.*] Has this been a good fishing season, as far as it has gone?

Yes; I looked upon it with a great deal of expectation, that it was going to be a fine grilse fishing, but we have had such severe rains, that I cannot say what effect that may have upon them; I looked upon it that we had very good prospects.

3032. Have you killed any grilses yet?

Yes, a good many.

3033. *Chairman.*] Does the fluctuation in the take of salmon, of which you have been speaking, and for which you have been unable to account, extend to other fish as well as to salmon?

Yes; I have heard parties say this year that there have not been so many white fish in our market at Aberdeen for seven years; that is to say, haddocks and every other kind of fish.

3034. Do you send the greater part of the salmon which you take to London market?

Yes; sometimes they require some for curing purposes, at Aberdeen. I sold a great many boxes to the late Mr. Allardyce one season.

3035. Do you sell some for ordinary consumption, and some for curing?

I do not depend much upon ordinary consumers; my fishings are all out upon the coast, and I keep no stall for selling. If anyone in the neighbourhood chooses to go to the station and ask for a fish, they get it.

3036. With regard to the quantity you send to Aberdeen, is it partly for ordinary consumers, as well as for curing purposes?

No; I do not send any to Aberdeen, I send all to the London market, except those that are sent for curing purposes.

3037. What is your opinion as to the proper fishing season, the commencement and the close?

So far as my experience goes, the opening of the season is early enough, it is as early as it would be profitable.

3038. When do you begin to fish?

We begin to fish on the 1st of February.

3039. When do you close?

The 14th of September.

3040. Do you generally keep your nets in the sea till that day?

Yes.

3041. We have it in evidence from some other lessees of fisheries that they
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find it advantageous for themselves to take their nets out of the sea at an earlier day; that is not the case with you?

It is not the case with me; in the southern parts they might, possibly; in the further north they begin to fall off, and they would save to shorten the season a little, but in the south of Aberdeen I mean to say that we find the fishings very good, and they produce very well up to the time of closing, generally speaking.

3042. Should you expect by closing earlier than is the case at present that a larger number of breeding fish would ascend the river?

I should say after the closing there is plenty of time for fish swimming up to stock the rivers, if they were properly preserved.

3043. Would not that be one means of, at least, partially reconciling the interests of the upper heritors with those of the lessees and proprietors of the sea coast fishings?

Yes, that would be a great means; that certainly could not but be the means, in an indirect way, of stocking the rivers.

3044. Do you think that closing on the 12th or 20th of August would be seriously detrimental to your interests?

Yes, it would be a very great loss to close then.

3045. You take a great quantity of good fish between those periods?

Yes; I have seen in the third week of August the best fishing I have had in the season.

3046. *Earl Ducie.*] Upon what grounds would you advocate an earlier close time?

It is the only time, or about the only time, that we see fish in a spawning state; and I would allow them to ascend for the purpose of spawning.

3047. Do you think that by a greater number of spawning fish ascending the river, the supply of fish in the future would be greater?

Yes, they would if they were preserved, but the fish is poached so much. A gentleman told me the other day that he saw, upon visiting a bank, that as many fish had been killed as I had taken the whole season; that is from the spawn being destroyed.

3048. *Earl Candor.*] Where was that?

Upon the Dee.

3049. *Earl Ducie.*] Do not you think that if an earlier close time were established, the increased quantity of fish would repay you for the shorter time which would be allowed you to fish?

I could not say; I believe the early closing would not have the desired effect if they were not properly protected, and it would require a very strong force to protect them properly.

3050. Do you think they are insufficiently protected at present?

Most undoubtedly.

3051. For what reason?

Because there is no person to protect them; upon the Dee there is only one man for seven miles, and that is the same as nothing.

3052. At whose expense is he maintained?

I believe it is at the expense of the river proprietors.

3053. If a larger number of fish were allowed to get into the upper waters, do not you think it would be to the interest of the upper heritors to establish a greater number of watchmen along the banks of the river?

It would; it would tend to make them more anxious if they felt an interest in it, to establish a better river police; but it is very difficult.

3054. Therefore, if an earlier close time were established, and a larger number of fish allowed to ascend the river, it would be to the interest of the proprietors to protect the upper waters more than they do at present?

Yes, if there were a greater number of fish, and a proper force of river police, that would be the means and the only means that I am aware of.

3055. Do

3055. Do not you think that the establishment of a greater number of police, would be the result of allowing a greater number of fish to ascend the river?

The establishment of the police would have no effect in allowing the fish to ascend the river if there were not a longer close time; that has nothing to do with it.

3056. *Chairman.*] Do you employ a considerable body of men in your sea coast fishings?

Yes, I have about 70 altogether.

3057. Would those men be all thrown out of employ if the stake and bag nets were abolished?

As I have stated, there are none of the stations on that rocky coast that can be fished otherwise; that is to say, Findon, Portlethen, and along that coast, is entirely fished by bag nets, and will fish by no other means.

3058. Do you think, too, that the sea coast fishings afford a valuable nursery for seamen?

The sea coast salmon fishings, I could not say that they do.

3059. Are your men such as would make good seamen?

They are in the prime of life generally speaking, stout hearty men.

3060. Lord *Colville* of Culross.] Do they ever go in ships?

No.

3061. Lord *Polwarth.*] Do they ever go in boats?

Yes, every day.

3062. Earl *Ducie.*] How far from the shore are your bag nets moored?

Along the coast; one bag net extends about 190 to 200 yards.

3063. That is the extent of the voyage that your men are compelled to make?

No, they have longer voyages than that; they have a great way along the coast to go.

3064. Lord *Colville* of Culross.] Do many of the young men who are brought up as fishermen join the navy or the coast volunteers, or that class of service?

There are a few of the white fishermen join the coast volunteers.

3065. The salmon fishermen?

Not many of them that I am aware of; there may be some of them.

3066. Lord *Polwarth.*] Your boats are flat-bottomed cobbles, are they not?

Yes.

3067. Do you think the salmon ascend the rivers for other purposes than those of spawning?

I am not prepared to say what is their instinct for it, but it is evident that the grilse ascend the rivers at a very early age; I do not think it can be for the purpose of spawning that they ascend the river; there are a great many grown-up fish that are not in a state of spawning.

3068. Lord *Polwarth.*] Have they no spawn in them?

Not to the extent that they would have at maturity; every fish has some, but a young grilse is not in a state of spawning when it is a pound and a half weight as they are when we see them first; the young grilse when they ascend the river are not in a spawning state.

3069. Lord *Colville* of Culross.] Do you think they go up the river early and come down again, and then go up later to spawn?

I do not think they come down; I never saw any come down.

3070. *Chairman.*] Does it consist with your knowledge, that when salmon come to the mouth of the river and find the water, as it is termed, "small," they leave the river and proceed again to sea?

They certainly do that; they do not ascend the river, particularly on our Dee; it would be many times in a state that they would not take the river.

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3071. Lord *Polwarth*.] Would they take the river when there is a speight?
 Yes, a little fresh.

3072. When they feel they can swim up the river?
 Yes, as it sweetens the water; it is more stagnant and hot at other times.

3073. When the river is full they continue running, do they not, until they get into the small streams?
 Yes.

3074. Do you know anything of the small streams?
 No.

3075. *Chairman*.] You have said that you seldom or never catch any foul or spent fish in your bag nets; does not that show that the spent or foul fish descending the river at once seek the deep water?

As I stated before, we have had a few at Chanonry Point, but we scarcely have one upon the south coast.

3076. Earl *Cawdor*.] When the fish are entering the river do they keep the north or the south shore of the Moray Firth; upon the Chanonry Point side, or the Fort George side.

I should say that we have got a fair proportion on the Fort George side, but we have got more upon the north side.

3077. *Chairman*.] I think you have admitted that a great quantity of the fish that would ascend the river are taken in your nets?

Yes; there is not a doubt of that.

3078. Do you attribute the falling off in the quantity of salmon taken in the rivers to other causes as well as that?

There are a great many causes; there never will be, in my opinion, what there was in the Dee.

3079. Will you tell the Committee what, in your opinion, those other causes are of the falling off that has taken place in the quantity of salmon taken in that river?

There is a large town arisen upon its banks. There is a large amount of sewerage discharged into the river, and there are steam-boats and tug-boats plying about every hour in the day now, I may say, at the mouth of the Dee; and that I consider very detrimental to salmon getting up.

3080. Are there dams either on the Dee or the Don?

There are none upon the Dee, there are upon the Don.

3081. Do they tend very much to prevent the ascent of the fish?

Yes; they cannot ascend where there are dykes, because there is no water.

3082. Is there no gap in the dyke?

Not that I am aware of.

3083. Would it be possible to enforce the making of a gap in those dams without great injury to the water-power?

I could not say; of course it would take away the power.

3084. Lord *Polwarth*.] You are not personally acquainted with the situation of those dams?

I have seen them, but I could not describe them; I have seen the cruives upon the Don.

3085. *Chairman*.] You know that there are cruiue dykes upon the Don?

Yes; there are cruiue dykes upon the Don.

3086. Lord *Colville* of Culross.] There are two cruives, are there not; one high up, near Inverury, and the other lower?

I have never seen but the one, at what they term Gordon's mills, a few miles above.

3087. *Chairman*.] Do not those cruives prevent the ascent of the fish to the spawning

spawning beds, and therefore very much affect the interests of the upper heritors?

Yes; no doubt about that.

3088. As much perhaps as the sea-coast nets?

It is evident that if they pass the sea-coast nets, they would be caught at the cruives, unless there be a very extraordinary flood.

3089. Do you believe that the fishing by means of sweep and other nets in the mouths of rivers, is very destructive to the breed of salmon?

They take the salmon, but they are not more destructive than others.

3090. Not more destructive than the stake and bag nets?

No, not sweep nets in the mouth of the river.

3091. Do you believe the stake and bag nets break the shoals of salmon?

They break them, so far as what they catch are concerned.

3092. Are those that do not enter the net deterred from proceeding on their course?

Not at all. I hold there is nothing deters them. They have a certain instinct, and they proceed on.

3093. Lord *Colville* of Culross.] Do you take many injured salmon out of your stake and bag nets?

No; we may get one or two sometimes, perhaps a seal bite, or anything like that, but nothing further.

3094. *Chairman*.] Do you believe that if stake and bag nets were abolished many more fish would ascend the river as far as the spawning bed?

No, I do not believe that they would.

3095. You think that they would be intercepted by the means employed on the river?

The very same; I hold that there would not be any more ascend to the spawning beds if there was not a bag net or a stake net either in the sea; they would be intercepted upon the Dee, which I have been most acquainted with, within 15 miles of the mouth of the river.

3096. Lord *Polwarth*.] They would be taken in one part if they were not in another?

Yes, that is the very thing.

3097. The fish wish to get to the river?

Yes; they have an instinct; I am not prepared to say what that is.

3098. You do not think too many are taken between the two places in which they are caught; that is, either in the bag nets or the river?

I do not.

3099. Therefore you are not over-fishing your river?

The river I cannot say.

3100. *Chairman*.] Including what are taken in the bag nets and what are taken in the river, you do not think they over fish the river?

I could not say as to over fishing the river; they are very anxiously looked after. I should never be prepared to say that by stopping any one year and taking a shorter quantity, it would be followed by a fuller quantity the next year; I have not been able to account for the falling off that there is one year over another.

3101. Will you hand in a table showing the number taken at your various fishings from 1837 to 1859, and their average weights?

The Witness delivers in the following statement:

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TABLE of Numbers and Average Weight of Salmon and Grilse caught *ex adverso* of the following Lands, by George Gray, Salmon Fisher, Aberdeen.

I. Findon and Portlethen, about 6 miles from Aberdeen.
(Whole number of fish caught.)

Year.	Number of Salmon and Grilse.	Average Weight of Salmon.	Average Weight of Grilse.
		<i>Lbs.</i>	<i>Lbs.</i>
1837 - - -	1,338	12	5
1838 - - -	1,870	10½	4½

II. Half of Findon and all Portlethen, together with Downies, Cammachmore, Newtonhill, and Monduff.

Year.	Number of Salmon and Grilse.	Average Weight of Salmon.	Average Weight of Grilse.
		<i>Lbs.</i>	<i>Lbs.</i>
1839 - - -	2,498	12	4½
1840 - - -	1,807	11	4½
1841 - - -	4,698	11	5½
1842 - - -	6,800	11½	5
1843 - - -	5,416	12	5½
1844 - - -	5,570	11½	4½
1845 - - -	6,450	11½	5
1846 - - -	4,698	12	4½
1847 - - -	4,886	11½	4½
1848 - - -	5,610	12	5
1849 - - -	8,900	11½	5
1850 - - -	4,100	12½	4
1851 - - -	3,725	11½	4
1852 - - -	4,356	11	4
1853 - - -	5,887	11½	4½
1854 - - -	7,377	11½	5
1855 - - -	5,593	10½	4½

III. Findon, Portlethen, Downies, Cammachmore, Newtonhill, and Monduff.

Year.	Number of Salmon and Grilse.	Average Weight of Salmon.	Average Weight of Grilse.
		<i>Lbs.</i>	<i>Lbs.</i>
1856 - - -	7,165	12½	4½
1857 - - -	9,702	12	4
1858 - - -	8,502	11	4
1859 - - -	8,200	10½	3½

IV. Bay

IV. Bay of Nigg, about Two Miles from Aberdeen.

Mr. G. Gray.

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Year.	Number of Salmon and Grilse.	Average Weight of Salmon.	Average Weight of Grilse.
		<i>Lbs.</i>	<i>Lbs.</i>
1857 - - -	6,240	12½	4
1858 - - -	6,590	11	4
1859 - - -	5,780	10	3½

V. Woodston, near Montrose.

Year.	Number of Salmon and Grilse.	Average Weight of Salmon.	Average Weight of Grilse.
		<i>Lbs.</i>	<i>Lbs.</i>
1851 - - -	3,550	12	4
1852 - - -	13,600	12	4
1853 - - -	8,350	12	4½
1854 - - -	10,200	12½	5
1855 - - -	5,000	11	4½
1856 - - -	3,800	13	4½
1857 - - -	8,500	12½	4
1858 - - -	6,697	11½	4
1859 - - -	9,671	10½	3½

VI. Berryhill and Tarbet Hill.

Year.	Number of Salmon and Grilse.	Average Weight of Salmon.	Average Weight of Grilse.
		<i>Lbs.</i>	<i>Lbs.</i>
1856 - - -	1,422	12½	4½
1857 - - -	1,826	12½	3½
1858 - - -	1,790	11½	3½
1859 - - -	1,760	10½	4

3102. Earl Cawdor.] Are you well acquainted with the Beaully?
I cannot say that I am particularly acquainted with it; but I have seen it.

3103. Do you know the nature of the cruives upon the Beaully?
Yes, I have seen them. I produce a plan which has been given me.

(The Witness produces a sketch of a cruive upon the River Beaully, at Beaufort Castle.)

3104. Can you describe the manner in which the cruive is constructed?
It can be seen better upon the plan than I can describe it.

3105. Are the cruives constructed in a manner so as to enable the fish easily to get up the river?
They cannot get up.

3106. Not at any time?
Not unless it was very full water, and a very great spaight.

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3107. Could

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3107. Could not they get up on the Saturday?
No; I do not mean to say that they could get up on the Saturday or Monday.

3108. Is there any provision for a slap in them?
So far as my opinion of it goes, the slap is of very little consequence to the fishing there.

3109. Why so?
Because the slap is put out of their way altogether; the cruive is just upon the principle of the bag net reversed.

3110. Do you think many salmon get past the cruives during the fishing season?
I do not think they can.

3111. Do you think cruives are more destructive to salmon than stake nets and bag nets?
They may escape the bag net; they have plenty of room in the sea; but a cruive on the banks of the river is an effectual means of stopping them.

3112. Lord *Lovat*.] Are you aware that those cruives have been opened always on the 26th of August?
I am not aware of it. It is below where the value of the fishing is, because they cannot get up.

3113. Are you aware whether fish are caught in the cruives on the Beaully?
I am not aware; but I should say there might be a few; the cruive acts as a barrier; it is not in the cruive that any amount of fish will be caught.

3114. Lord *Polwarth*.] Have you any experience of the way in which the pool below the cruive is fished?
I see the way it is fished.

3115. Have you been in the habit of seeing that pool fished?
Yes; but not often.

3116. In what way was that pool fished when you saw it?
By sweep nets, as I understand.

3117. A drag net or a sweep net?
A sweep net or draught net.

3118. You do not know whether the fish are taken in those cruives or not?
No.

3119. You have had no experience with respect to them?
I have had no experience.

3120. You do not think the cruives are calculated to take fish?
They are not calculated to take the fish; they are calculated to obstruct them.

3121. Lord *Colville* of Culross.] How far are those cruives from the sea?
I should say five or six miles.

3122. Earl *Cawdor*.] Are you acquainted with the river above the cruives?
No.

3123. Are you not aware that there is a fall upon the river?
I have seen a fall upon the river.

3124. Is that a fall over which fish would get in the ordinary state of the water?
Yes, I should say they would; they spring an immense distance with the river coming over, but the cruive is put in the way to obstruct them.

The Witness is directed to withdraw.

Mr. JOHN WEATHERSTONE, called in ; and examined, as follows :

3125. *Chairman.*] I BELIEVE you have been accustomed to salmon fishing for a good many years ?

About 47 years.

3126. You are now tacksman of some fishings at Lamberton, and you fished previously at various fishings on the Tweed ?

Yes.

3127. You have also had some experience in coast fishings, have not you ?

Yes.

3128. Have the fishings, generally speaking, fallen off since you have been the lessee of them ?

In my sea fishings I cannot say they have fallen off much, but on the Tweed they have fallen off considerably within the last few years.

3129. As no stake or bag nets are placed in the Tweed, or within some miles of the mouth, you cannot attribute the falling off to the use of those engines ?

No ; all fixed nets are done away with in the Tweed. I believe by the Tweed Act of 1857 all fixed nets were done away four miles to the north and five miles to the south ; there is not a fixed engine of any description, yet, for all that, the Berwick Shipping Company gave no dividends ; they have the largest fishings on the Tweed this year, and I think it is the worst year that ever I knew ; there are a great many fishings not yet commenced fishing.

3130. To what cause do you attribute the decrease that has taken place in the quantity of salmon taken in the Tweed ?

I attribute it a great deal to the very extensive poaching that is carried on in the winter season.

3131. Lord Colville of Culross.] Is that carried on still.

Yes, to a great extent.

3132. *Chairman.*] Have you any remedy to suggest for that evil ?

There is no other remedy, but a sufficient staff to protect the river, I should think. It is my opinion that poaching has increased greatly within the last 20 or 30 years, and more especially I would say within the last 10 years.

3133. Do you think that the fishing season should close earlier than it does at present ?

No, I think we should fish a little later on the Tweed.

3134. Is the Tweed a late river ?

She is a late river.

3135. Should the fishing commence earlier than it does now ?

I would say that in January it should commence, and it might be fished very profitably to the 10th of October.

3136. Would not it be very detrimental to the interests of the upper heritors ?

I do not think it would.

3137. Do you think as many breeding fish would ascend to the spawning beds ?

It is my opinion that the fish caught in the open season are not the spawning fish at all.

3138. When do you believe that they commence to spawn in the Tweed ?

In the latter end of November, December, and January.

3139. Generally from your experience of sea coast fishings, do you think that the take of salmon has fallen off or increased of late years ?

So far as I know, I think they have not much fallen off in the sea fishings ; speaking generally.

3140. You have said that there is a smaller quantity taken in the Tweed than (135. 9.) used

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used to be taken; do you think the quantity of fish taken on the sea coast has increased in a greater or smaller proportion?

Generally speaking the fish on the sea coast has increased; not about the Tweed, but in the Scotch fishings I should think they have rather increased.

3141. Has the supply been more regular?

A very regular supply to what there was formerly.

3142. A larger and more regular supply?

Yes; and I can tell your Lordships other reasons: It has been a settled opinion of mine, and I think it will be borne out, that the more agriculture is increased upon the hilly country the more our fishings will decrease. I am strictly of opinion that our river fishings will never be so productive as they have been, owing to the chemical manures that are used, and the manufactories that are established upon the localities of the river, that gives the water a very obnoxious taste to the salmon; they really will not take it; I have seen them come to the mouth of the river, and they would not enter when there was nothing to prevent them from entering; there they were, but they would not come in; even up to the month of December I have seen that.

3143. Lord Colville of Culross.] Although that might hold good with respect to the Tweed, it would not hold good with respect to rivers which exist in Scotland, which have no manufactures or large towns upon them?

Not there.

3144. Are not you aware that the same complaint of the falling off of the salmon exists with respect to those rivers?

Some rivers are different; some of the rivers this year in Scotland are fishing very well.

3145. Lord Polwarth.] Do you think that the waters of the Tweed are unwholesome to drink, in consequence of the chemical mixtures which fall into the upper part of the river?

The smell, at many times, on the shores of the Tweed is very obnoxious, and that must go against the fish.

3146. Do the fish dislike guano?

There is not the least doubt of it.

3147. Did you ever observe fish among the common sewage of a town?

No; but I will tell you what I have seen; when I have seen the Whiteadder, about a mile above Berwick, flooded, and the Tweed clear, you will not get one fish; when she is flooded, you will not find one fish on the side she is flooded.

3148. Are you not aware that fish fatten upon the common sewage of a town?

I am not aware of that, and I am very sure they will not go near it; I believe an eel will do it, but a salmon will not.

3149. Lord Colville of Culross.] Do not you think, as the salmon come from the north, they work along the coast, and that a great many of the fish making for the Tweed, are intercepted long before they get there, by the stake and bag nets upon the coast?

It is my opinion that the fish do not hug the coast so much as many people think.

3150. Do you think that salmon come into the rivers directly from the sea?

In the Tweed they do, and in a great many other rivers. When fish are caught by the stake and bag nets, it is my opinion that they are just stragglers from the main body of the fish. If the main body came along the shore, and come in contact with the stake nets and bag nets, they never would hold them. I have seen them about half a mile off at sea, and you would think that there had been a line drawn, or a dyke over, which they could not pass. I could see hundreds of them jumping up, and just here and there a straggler got outside, and he would be caught in the nets.

3151. Chairman.] Do you believe, if the rivers were properly protected, that a sufficient quantity of breeding fish would ascend to the spawning beds, even if

if the stake and bag nets were re-established on the mouth or near the mouth of the Tweed?

I do.

3152. *Earl Ducie.*] What inducement would there be to protect the rivers if stake and bag nets were re-admitted in the estuary?

There would be a great deal more per-centage given, and they could employ more men if the stake and bag nets were established. I would not advocate them within nearer than a mile of the river on each side. Then we would have four miles to the south, which might be fished with the bag and stake nets very profitably, and that would yield considerably more revenue, so that there would be a good per-centage for the protection of the river.

3153. What, in your opinion, should be the legal definition of the river?

I would say about two miles, one mile each side of the river.

3154. What is the legal definition of the Tweed?

It is four miles to the north, five miles to the south, and five miles out to sea; that is defined as the mouth of the River Tweed, and there is not a fixture within those bounds.

3155. *Lord Colville of Culross.*] It being admitted that the fishings in the Tweed have fallen off very much indeed, do not you consider that the re-introduction of stake and bag nets, in the manner you propose, would aggravate that evil?

I do not, for this reason: there would be a great many fish caught in the bag and stake nets that would not enter the Tweed; they do not come in although there is nothing to stop them from coming in; there may be hundreds and thousands to-day, and perhaps in two or three days the wind may change, or a storm come, and they will go away off to sea.

3156. In what state was the Tweed at that time; was the water large or small?

You will see them in all states of the water, and many times when there is a spaight they will come to the water of the river, but when they come in contact with it you can see them jumping off as hard as they can jump.

3157. They will not face the water in the river?

No.

3158. *Chairman.*] Do you believe that salmon always enter the river for the purpose of spawning, and for no other purpose?

I do not.

3159. Will you give your opinion to the Committee upon that point?

We see salmon come in the spring of the year in a perfectly clean state. We have the greatest abundance of grilse in the latter end of July or the beginning of August, when they are not in a spawning state at all.

3160. *Lord Colville of Culross.*] They always have roe in them, have they not?

All fish have roe in them, and more or less milt.

3161. In fact they are proceeding to spawn?

They are not proceeding to spawn at all; these are not, in my opinion, spawning fish, because the spawning fish are altogether different fish from these; they will lie in deep pools if they are not captured, but if a spaight should come they will go away back to sea. But when we have the spawning fish enter the river at the latter end of November or December they will go up the river; they do not go there at once, but go by certain stages; they will hang in the river at certain places; you will see hundreds come, and if you go the next day you will not find them, they have moved up another stage, and they move on from stage to stage till they get up the river.

3162. *Lord Polwarth.*] How high will those fish go up the river?

I do not know how high; they go a great distance.

3163. *Earl Cawdor.*] Do you consider that at that time the fish are going up the river for the purpose of spawning?

Yes.

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3164. *Chairman.*] Are you of opinion that the same fish is a grilse the first year and a salmon the second?

That is scarcely my opinion.

3165. Do you believe them to be different fish?
Yes.

3166. Do you believe that they spawn as different fish?
Yes.

3167. *Earl Ducie.*] Do you hold the salmon and grilse to be two different species of fish?

That has long been a confirmed opinion of mine.

3168. *Lord Polwarth.*] A grilse is not a young salmon, you think?

No; I will give a sufficient reason for that, in my opinion, at any rate. When the grilse go up to spawn, in the latter end of the year, they generally return to the sea in the month of April; that is the special time for the grilse kelts going back to sea. There are a great many clean salmon at the first commencement of the fishings, on the 1st of February; these cannot be the grilse that spawned last year, in the course of the winter, because they are on their return back to the sea, in March and April.

3169. *Earl Ducie.*] Do you know any river in which either grilse or salmon are found alone, the one without the other?

In the Tyne, at Newcastle, there are a very few grilse.

3170. Are you acquainted with any river which is exclusively stocked either by grilse or by salmon?

No, I do not know of any.

3171. *Chairman.*] Are you of opinion that either grilse or salmon spawn in the sea?

I am not confirmed in that opinion. There is a fish which we call a kipper grilse, which by all accounts spawn in the sea, and come up in the spring months as clear as silver; it takes a judge to know whether he is a clean salmon or what the fishermen call a kipper grilse. He is as like a salmon as can be; nevertheless he is not a good fish; you would think to look at him that he is; he has all the properties of a clean salmon.

3172. *Lord Lovat.*] Are these fish caught high up the river, or low down?

They are caught both high up the river and low down; swimming up as clean salmon.

3173. *Lord Polwarth.*] Is not a kipper a small grilse that has spent the greater part of his milt?

The greater part of it, not all.

3174. *Chairman.*] You are inclined to believe that these fish have spawned in the sea?

Yes; whether the spawn has come forward or not is a different question.

3175. *Lord Lovat.*] Do not you think such a fish has spawned in the river, and is on its way to the sea?

No; we catch them coming from the sea, in the tideway near Berwick.

3176. *Chairman.*] Have you any suggestion to offer to the Committee for the amendment of the law in respect of salmon fishings?

In my opinion, in a great many of the Scotch rivers they should close earlier than they do at present.

3177. You think the Tweed should be an exception to that rule.

Yes; I think she is a late river. There are some rivers later than others, and those rivers that are later can be fished very profitably, still leaving a sufficient quantity of good fish. That is my opinion.

3178. Do you think there should be a commission or board established, with discretionary power to fix the limits of the close season according to the circumstances of each river?

Yes,

Yes, and I think it would be a very good thing if there were sufficient protection for the breeding fish afterwards in the rivers.

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3179. Do you think the period for rod fishing should be extended beyond the period at which the net fishing closes?

In the Tweed the rod fishing is extended.

3180. Do you think that is a proper regulation?

I am favourable to rod fishing myself, but I think the time should be extended four weeks, to encourage protection.

3181. As a boon to the upper heritors?

Yes.

3182. Lord Colville of Culross.] Are not the Tweed fisheries very bad this year?

Very bad indeed, and therefore it cannot be said that the fixtures are the reason.

3183. Chairman.] You think that the re-establishment of the stake and bag nets would be the means of catching a great number of fish that now do not enter the river?

I have not the least hesitation in saying that they would, and that there would be a revenue of 2,000 *l.* a year more derived for the purpose of the fisheries.

3184. Lord Polwarth.] Would you restore the fixed nets in the river?

I would not go that length, but would restore seaward stells.

3185. Was not the river Tweed most unusually small all last season?

Yes, she was very small all last season.

3186. Was not there a greater drought last year than ever was recollected?

I think I have seen her as small.

3187. Not since the year 1826?

No; we had very good fishing in the year 1826, small as she was.

3188. Would not the want of flood-water in the river account for the short supply of fish in the river?

In the winter season there were plenty of spawning fish went up.

3189. During this winter was not there a great number of fish in the river?

A very great number indeed.

3190. Lord Colville of Culross.] They were not afraid to go into the river in consequence of its being in such a foul state.

She is purified by spaight after spaight, and when she begins to get purified they will take her. Owing to the drainage from the land the river rises very fast, and she fall as rapidly back again. When we get spaight after spaight the water purifies.

3191. That would account for what you told us before, that you saw an enormous quantity of fish waiting to go in; if the Tweed had gone down they would have gone in?

No, the time was not sufficient, it takes spaight after spaight. In the winter season the water gets far purer, and the fish incline to go in to spawn.

3192. Lord Polwarth.] From the long drought of last year, was not the Tweed far from being as clear as it is usually?

In the year 1826, when she was as little as last year, we had very good fishing; last year it was a very bad fishing; the fish will not enter now as they did formerly, and I attribute that to the reasons I have already mentioned.

3193. Lord Lovat.] In 1826 were there many bag and stake nets round the coast?

There were bag and stake nets then, I think.

3194. Not so many as now?

There are now none at all.

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Q q

3195. Beyond

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3195. Beyond the boundaries of the Tweed there are ?
There is a fishery there now, and there was none then, only we had stake nets nearly into the mouth of the river then.

The Witness is directed to withdraw.

Mr. JOHN DUNN is called in, and examined, as follows :

Mr. J. Dunn.

3196. *Chairman.*] DO you reside at Newburgh, on the Tay ?
Yes.

3197. You are lessee of fishings on the Tay, and also on the sea coast, are you not ?

The most of the fishings I have in the Tay are above Broughty Ferry, and above the estuary of the Tay. I have fishings above Newburgh and at Mugdrum, closer to Perth.

3198. In what mode do you fish ?
With the net and coble.

3199. Have you any stake or bag nets ?
No stake nets nor bag nets.

3200. Has the take of salmon at your fisheries increased or decreased of late years ?

It has increased a great deal up near Perth.

3201. Are there any stake and bag nets on the sea coast beyond the mouth of the Tay on either side ?

Captain Dougall has the one nearest round the Fife coast, within about half a mile of the Tay, I believe.

3202. How long have those stake and bag nets been in operation ?
I could not tell that.

3203. But for some years ?
They have been longer than ever I was a fisher.

3204. The existence of these stake and bag nets has not produced any diminution in the quantity of the salmon in the Tay you think ?

No, apparently not in the Tay ; I have about 800*l.* rent of sweep-net fishings.

3205. You, as a sweep-net fisher, do not object to the existence of these stake and bag nets ?

I cannot do that, because the fishings in my part with the sweep nets have improved materially the last few years back.

3206. You say that the quantity of salmon has improved ; have you any suggestions to offer for the further improvement of the salmon fisheries ?

I think the close time in the Tay will make a great improvement to it.

3207. You think the fishing season ought to close sooner than it does ?

In every quarter it ought to close earlier. I was a great supporter of the earlier closing on the Tay, and I assisted in getting a private Bill for altering the close season from the 14th of September to the 26th of August.

3208. In your opinion, should the fishing season commence when it does at present ?

Yes, I think the time it commences is very fair, from the 1st of February ; I think it is early enough.

3209. Though you would lose a fortnight of the fishing season, you think you would find your advantage in that earlier closing ?

Yes, I believe there would be more salmon.

3210. I presume, also, you think it would be to the advantage of the upper heritors ?

A great deal.

3211. Are

3211. Are there any cruive dykes or other fixed engines on the river above you? I have heard that the Duke of Athole has one a long way up the river, but I never saw it; my fishings are about eight or nine miles below Perth.

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3212. Lord Colville of Culross.] I presume you consider that the fishings in the Tay are improving, because you catch more fish? There are more fish caught.

3213. Is not that owing to an improvement in your style of fishing more than anything else?

The improvement in the sweep nets has destroyed the upper fishings; the Earl of Mansfield's and the Duke of Athole's fishings, and so on.

3214. The people above do not think that the fishings have improved?

It has decreased with the Earl of Mansfield and about Perth; but the Earl of Wemys's fishings have improved materially.

3215. How long have sweep nets been introduced in the Tay to the extent to which they are now used?

The greatest improvement has taken place within twenty years.

3216. Is not there a sort of fishing called Bermoney boat fishing?

Yes.

3217. What is that?

The net is the same; it is only making a station so that they can go easily round; there is a hauling-place, and a cairn out of the water; the men cannot lead the net in the water on account of its being deep; there is a rope that leads to the station, and they have some rollers in the boat, they put a rope over the boat, and a man stands in the stern, and makes that a leading ground to walk upon; they do not require that on the opposite side of the river, because the beachmen can work the same as the Bermoney boats can do. The whole difference between an ordinary fishing station and a station fished by a Bermoney boat is, that instead of the men walking or wading along the water edge, they stand in a boat and pull it along by the rollers mentioned.

3218. *Chairman.*] Do you work the sweep nets on your fishings with the Bermoney boat?

I have one fishing belonging to Mr. Patterson, of Mugdrum, that is worked in that way. Also two having beach landings.

3219. When the fishing is worked in that way, I presume that no fish can ascend the river?

Supposing them not used, the nets on the opposite side, where there is a high beach to work upon, would get the more fish; they would get the whole river to sweep, without opposition, killing the whole fish, as before.

3220. Is it your opinion that a sufficient quantity of breeding fish ascend the rivers for the purpose of keeping up the stock in the rivers?

No; since we have closed on the 26th of August, I think it will improve. I subscribed to getting the Private Act, and I subscribed to the breeding ponds in the Tay.

3221. Lord Colville of Culross.] Have those breeding ponds been productive of much good?

They must do good; they can do no harm. I have been a great assister and supporter of Mr. Buist in doing that.

3222. Lord Lovat.] Has not the improvement of the navigation of the Tay altered many of the fishings?

Yes; the navigation has improved all the fishings where the works went on; it has made a clear space for the fish to go up and down, and that keeps them from going further up above the bridge of Perth.

3223. Lord Colville of Culross.] Were not some of the proprietors of fishings paid large compensation for damage alleged to have been done to their fishings by the navigation works?

Sir John Richardson got a large compensation for his fishings, which are of as much value as ever.

3224. *Chairman.*] What is the size of the mesh of the nets that you use?

This is a piece of an old net (*producing the same*); this is about the average size.

(135. 9.)

Q Q 2

3225. What

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3225. What is the size of that mesh ?
About 4½ inches.

3226. Lord Polwarth.] Is there any regulation on the Tay as to drawing sweep nets, one after the other, or are they allowed to be put in as fast as possible ?

The sweep nets go in just as fast as possible.

3227. Do they obstruct the run of the fish entirely for the time ?
Yes, the fish are prevented getting further up.

3228. Lord Colville of Culross.] Do those nets sweep the whole of the channel ?

Yes ; from side to side, and just as soon as one net is out another goes in.

3229. Have the fish any chance of passing the sweep nets ?
They have very little chance of passing and getting up to the bridge of Perth.

3230. Chairman.] Can the sweep nets be used at night ?
The sweep nets get more in the night time than in the day time.

3231. Even in dark nights ?

Yes ; the salmon do not see the nets so well ; the small stell nets at the mouth of the river only fish in the day time, because they cannot see to fish ; they only fish a few hours in the day time, when the tide suits.

3232. Lord Colville of Culross.] What is the greatest length of any of the sweep nets on the Tay ?

It would be about a hundred, or a hundred and fifty yards, I believe.

3233. Chairman.] Do your nets take any smoults as they come down the river.

Here is a piece of net (*producing a piece of net*), with small meshes that they have commenced to use within a few years in the Tay, for the purpose of killing the small trout, mostly.

3234. Lord Colville of Culross.] Is that net legal ?

Yes ; before there is a law made, every mesh is legal at present.

3235. Chairman.] What is the size of the mesh of that net ?
About an inch and a half, or an inch and three quarters.

3236. Do you think that the size of the mesh ought to be defined by law ?
Yes, in the early part of the season.

3237. What ought to be the legal size of the mesh, in your opinion ?

I think the lowest size ought to be about the size of this in the early part of season ; that would be eight inches round the mesh.

3238. Lord Polwarth.] So as to let the smoults escape ?

Yes ; and so that there should be no inducement to kill the small trout.

3239. Chairman.] Do you take many foul or spent fish in your sweep nets ?

Sometimes a kelt fish is caught, and a few are killed. I am a fish-buyer as well as being a fisher, and I take in no kelt fish ; I will not have anything to do with them ; the persons to whom I send most of my fish are respectable shop-keepers, and they will not take them.

3240. Do you desire your men to throw them into the water again ?

Yes, or keep them to themselves ; I have no person to buy them from me, but they manage to get them sent to London ; everything of that sort is sent to London.

3241. Lord Lovat.] Do you kill the kelts ?
No, I have nothing to do with them.

3242. Do you put them into the water again ?
Yes.

3243. Chairman.] Do you believe that a great number of these spent fish are sent to London ?

Whatever are killed are sent to the London market.

3244. Are

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3244. Are you aware whether they are consumed in London or sent to a foreign market?

I have no correspondents in London; the whole of my fish, in the early part of the season, is sent to Edinburgh and Glasgow.

3245. Do you consign your fish to a salesman at Billingsgate?

I shall do so, in a short time, when the fish get more plentiful; when there is a greater supply than the retailers in Edinburgh and Glasgow can take, I send a quantity to Billingsgate, to Mr. Bateman.

3246. Has the price of salmon been stationary the last few years?

Within the last few years the price has been steady; since 20 years ago there has been a rise of a fourth or a fifth in price.

3247. What do you now get for your fish?

In the summer time they will run about 7 *d.* or 8 *d.* a lb. after the grilse come up, and then they get more plentiful.

3248. Do the purchasers pay the cost of transport to Edinburgh or Glasgow, or whatever market the salmon are sent to?

Yes.

3249. Lord *Colville* of Culross.] Do you know the Earl of Wemys's fishings?

I have never fished them, but I know them as well as if I had. In 1843 or 1844, as near as I can recollect, the rents were between 300 *l.* or 400 *l.*, and they have risen gradually up to about 2,400 *l.*

3250. Are those fishings principally worked with the sweep net?

All with the sweep net.

3251. Lord *Lovat*.] How far does the estuary of the Tay extend?

It would reach to about five or six miles above Dundee; that would be about 12 or 13 miles.

3252. How far to the seaward does the estuary go?

It goes about eight miles below Dundee.

3253. Does the estuary of the Tay include part of the bay of St. Andrew's?

It is outside the Tay altogether when you get into the bay of St. Andrew's. That is where Captain Dougall has a stake net fishing.

3254. Was not the boundary of the Tay laid down in a lawsuit by the Court of Session?

Yes; and that put all the bag nets and the stake nets out of the river.

3255. *Chairman*.] Is there any local Act regulating the fishings in the Tay?

Yes; there is a local Act for regulating the close time. We were all unanimous in getting the season shortened.

3256. Lord *Polwarth*.] That Act, I believe, was passed about four years ago.

Yes.

3257. *Chairman*.] Does that Act prohibit the employment of stake and bag nets within a certain distance of the mouth of the Tay?

The last Act that we got was only for the shortening of the season; all the proprietors, both upper and lower, were quite agreeable and unanimous in getting the season shortened.

3258. Had you a previous Act, preventing the use of stake and bag nets within the estuary?

Yes, before that.

3259. Not on the coast, but within a certain distance of the mouth of the river?

Not on the sea coast.

3260. Is the River Tay between the town of Perth and Birkhill fished in the same manner as that part of the river in which you hold fishings?

Yes; with sweep nets. I am tenant of 800 *l.* rent of fishings between Perth and Birkhill, at Mugdrum, all sweep nets.

3261. Do you attribute to that mode of fishing the decrease which has taken place in the quantity of salmon taken in the upper part of the river?

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I attribute

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I attribute the decrease of their upper fishings to the increased quantity taken between the bridge of Perth and Birkhill.

3262. Do you think, even if the stake and bag nets were taken off, that the fish would, for the most part, be caught by the sweep nets before they could reach Perth?

Yes.

3263. Can you state the relative value of the fishings in the Tay, so as to show which have increased, and which have decreased?

To a certain degree, I can. When I began to fish the Mugdrum fishings, which is about 1,100 *l.* rent this season, in the year 1830 they were about 90 *l.* rent. Mr. Buist, the superintendent, had them for a great course of years for 90 *l.*, but did not make much of them; they have increased gradually up to about 1,100 *l.*; that is one part that has risen very high. The Earl of Zetland's fishings, which are only fished with sweep nets, at that time were let for about 40 *l.*, and now they are up to 500 *l.* Mr. Buist had the Errol fishings for about the same rent that he paid for Mugdrum, and they are let this season for 500 *l.* Perth fishings let last year at a rise of 500 *l.* on the former rent.

3264. Lord Colville of Culross.] What are Lord Gray's fishings let for?

Lord Gray's fishings are let for about 3,000 *l.*; they have not come into the market, so that their value cannot be ascertained. The Earl of Wemys's fishings are let every season, so that the full value of the rental is ascertained.

3265. How are Lord Gray's fishings worked?

All with the sweep nets.

3266. *Chairman.*] Do you think the Saturday slap is of very much value?

It would be very little value in the warm weather, when the water was small, because the fish would not go up at that time.

3267. Lord Lovat.] Are those fishings improved by the improvement of the navigation of the Tay?

Yes; the improvement of the navigation has done a great deal of good.

3268. Has it improved the lower fishings?

The mid-water fishings; it is about 30 miles, I think, from the mouth of the Tay to Perth, and for almost 15 miles from Perth the fishings were improved greatly by the navigation works on the Tay and the drainage of the lands together, which leaves the waters very small above the bridge of Perth, so that the fish do not get up.

3269. Lord Colville of Culross.] How late do you fish on Saturday?

Till about 11 o'clock on Saturday, when the tide suits.

3270. Then you do not observe any slap at all?

No slap at all, except Sunday.

3271. *Chairman.*] Do you think the power to fish for a month longer might be given to the higher fishers with advantage to them and without detriment to the lower proprietors?

I think the first month of the fishings should be given to the upper proprietors (commencing with Sir Thomas Moncreiffe), but none to begin before the 1st February, on account of their fishings suffering so much by the middle proprietors getting the whole of the fish now; their fishings have suffered, and most of the other river proprietors' fishings have increased greatly in value.

3272. Lord Colville of Culross.] To whom do you refer when you speak of the fishings above the bridge of Perth?

I think Sir Thomas Moncreiffe's fishings have fallen off a good deal; I heard Lord Mansfield state himself, at a meeting of the proprietors, that his fishings used to let for from 1,000 *l.* to 1,100 *l.* a year, and now they are only let for about 100 *l.*; whereas Sir John Richardson's fishings have increased a good deal; the fishings at Seiggeden used to be let for 100 *l.* or 150 *l.*, and now they are about 600 *l.*

3273. Lord Polwarth.] You do not think the increase of salmon accounts altogether for the increase of rent; is it not a transfer of the fish?

It is partly a transfer.

3274. There

3274. There is also an increase of salmon ?

Yes ; but there is an increase in the river, because I know there is ten times the fish got upon some of the fishings about Mugdrum to what there used to be.

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3275. Which side of the Tay is best for the fish, the north side or the south side ?

There is not much difference in that ; there are good fishings on both sides, 15 miles from the mouth of the Tay, where I fish with a small stell net. The rent of the fishings is only 500 *l.* or 600 *l.* a year ; and above Birkhill, 15 miles, draws 11,000 *l.* or 12,000 *l.* ; but the assessment tables will tell that.

3276. Lord *Colville* of Culross.] Is that assessment table renewed every year ?

Yes ; every year the new lets are given in.

3277. *Chairman*.] Is there much poaching on the Tay ?

Very little ; scarcely any poaching. The law is pretty well respected on the Tay, and there appears to be a unanimous feeling in keeping poaching down.

3278. Earl *Ducie*.] Have you a large number of watchers ?

Yes ; there appears to be no want of watchers. Mr. Buist is the superintendent, and he has a second man under him, and that man has a great number under him. They go in gangs of four or five, and there is a foreman over each gang.

3279. Lord *Colville* of Culross.] So that the Tay is very well protected in the close season ?

Yes.

3280. Lord *Polwarth*.] Do not the breeding streams belong to the great proprietors ?

Yes, the Duke of Athol and others own them. The whole of the lower proprietors were agreeable, and gave no opposition to their having five or six weeks longer for rod fishing, and that has made them more anxious to preserve the fish, but that is very little for the damage they have sustained.

3281. Are you of opinion that salmon breed in the sea ?

I do not know that, but I know they breed in the rivers.

3282. *Chairman*.] Did you, some years ago, buy the fishings of Broughty Castle, about four miles from Dundee ?

Yes.

3283. Did you try to fish that station with sweep nets ?

Yes, when I bought it it was all fished with a small stell net ; we were used to fishing with sweep nets up the river, in the night as well as the day ; and I thought it would be a great improvement if we could get that fished in the night time as well as the day time ; we tried the experiment, but it was a failure, and I just returned to the small stell net. The sweep nets would have taken in three times the space of the river that the stell net does.

3284. You never tried to fish there with stake and bag nets ?

No, I did not think I had a right to do so ; it was only a stell net when I bought it ; and, although a bag net would improve my fishing, I do not think it would be just to put a bag net. That stell net had been held to be a legal net, and when I bought the fishings I fished with it, as it had been fished for hundreds of years.

3285. How far is that station from the nearest station at which there are stake and bag nets ?

Four or five miles ; it is four miles out from the mouth of the river.

3286. Are you able to say from your experience, whether salmon seeking to ascend the river usually what is called hug the shore, or whether they swim in deep water ?

I do not know that ; I know that a great part of them take the deep water in going along the estuary of the Tay. There is not one out of a hundred or out of (135. 9.)

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of a thousand that comes close in shore, across at Broughty Ferry; I know that, on account of the immense quantities that are seen in deep water.

3287. *Lord Polwarth.*] That is where they fall in with the current of the river?

Yes, they keep in the current when they go up; I know that they keep in the deep water, because up to the 14th September, when I have been fishing on the banks about the Earl of Zetland's fishings, they have been getting good quantities of salmon in a very brown and bad state, but they were only taken in what you may call the edge of the water; and if there happened to come a heavy spaight at the same time, the whole of the red fish ascending up the river were stopped wholesale, the worst kind of fish that could ever be seen. I have observed them, and thought that if the fishing had been stopped on the 26th of August, thousands of breeding fish would have got up to spawn, which were destroyed.

3288. *Lord Lovat.*] Do you think that those fish were lying in the mouth of the river waiting till the water suited them to go up?

Yes; they were lying about 15 or 16 miles up the river, it is very broad even that length up.

3289. How wide is the estuary?

About three miles or so.

3290. *Chairman.*] Your suggestions for the amendment of the law are, that the fishing season should close earlier than it does now, and that the size of the mesh in the nets used in rivers should be defined by law, and should be larger than at present?

Yes.

3291. I think you stated that the mesh should not exceed four inches?

It ought not to be below four inches or eight inches round; I think that would be somewhere about the just thing.

3292. *Lord Colville of Culross.*] Do you think the sewage from the Perth does much harm in the Tay?

No, I do not think that, because, at times, the fishings near Perth do very well. The Earl of Wemyss's fishings are increasing greatly in value. Perhaps I may be allowed to state that this small stell net of mine has been held for 100 years, and more, to be a legal net in the Tay; the superintendent has always allowed them to be legal if there was no bag or head put upon them for the fish to run into, but just an open net, to be hauled up when there were fish in it.

3293. *Chairman.*] Do you think there would be any injustice in requiring that the mesh should not be smaller than the dimensions that you have spoken of?

No, because it is only to save killing the bad foul small fish. I think it would be wise to make it that size up till a certain time, say the 1st of June, and then have a smaller one after that, when there would be no bad fish. I would make the mesh to suit the fishings, and be more easy for the men to work.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned to Thursday next,
 One o'clock.

Die Jovis, 21° Junii 1860.

LORDS PRESENT:

LORD STEWARD.
Earl CAWDOR.
Earl DUCIE.
Earl INNES.

Lord COLVILLE of Culross.
Lord POLWARTH.
Lord LOVAT.
Lord STANLEY of Alderley.

THE LORD PRESIDENT in the Chair.

Captain WILLIAM FRASER TYTLER is called in, and examined as follows:

Evidence on the
Salmon Fisheries
(Scotland).

Captain
W. F. Tytler.

21st June 1860.

3294. *Chairman.*] I BELIEVE you are a landed proprietor in Inverness, and the owner of salmon fishings in Loch Ness?

I am.

3295. Have you also rented parts of the River Ness for some time?
For the last three years I have held the greater part of the Ness.

3296. Are there any nets used in that river except those that are used by you?

During the last three years there have been none but those which I employ, with the exception of a stell net, which is used at the mouth of the river, which rents for 5 l. annually.

3297. Have the fishings rented by you been profitable, or otherwise?

Very far from it; I have lost the whole of the rent, and the working expenses have not even been paid for any of those three years.

3298. What were the rents in former years?

I have heard from different people, from my father and others, that my own fishings used to let for some 50 l. to 60 l. at one time; but the only authentic paper I have with regard to that, is an old account, which states 35 l. as the rent in 1816 or 1817.

3299. You were one of the promoters of the Ness and Beauly Bill, which was brought before Parliament this Session?

Yes, I was.

3300. Upon what grounds did you promote that Bill?

That those two rivers have been completely destroyed; that they were formerly of very great value, and gave a very high rent, and that now, except for the sporting rents, there is no return whatever upon the Ness.

3301. Who were the other promoters of that Bill?

The chief promoters were Lord Saltoun and Mr. Baillie, and Lord Lovat afterwards joined us; and the Beauly was brought in along with the Ness. The entrance to the two rivers is exactly the same, and it was thought necessary that they should be made one concern. In 1842 there was a Bill brought in for the Ness alone, and it passed through the Committee of the House of Commons, but was thrown out in the House of Lords afterwards, and never became law.

3302. Do you believe that the effect of that Bill would have been prejudicial to the interests of the proprietors of the sea-coast fisheries?

It is very doubtful indeed. I believe, with respect to the principal proprietor of the sea-coast fishings there, Mr. Mackenzie of Flowerburn, instead of being a
(135.10.) R R loser,

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W. F. Tytler.
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loser, if the rivers returned to their former state before the stake nets were introduced, that his income would be very much increased compared with what it is now.

3303. Earl *Cawdor*.] You think he would catch more fish than he does now?

I think he would catch more fish than he does.

3304. *Chairman*.] Was Mr. Mackenzie a promoter of the Bill?

No.

3305. Was he an opponent of the Bill?

He was an opponent of the Bill; his rent used to be 250 *l.* a year before the stake nets were introduced; at that time the salmon sold in Inverness, and all round the country, for never more than 4 *d.* a pound, and it now is never sold in Inverness under a shilling; it is sold generally at the beginning of the season up to half-a-crown. This year, as yet, it never has been below 1 *s.* 6 *d.*; taking it at 1 *s.* only, it is three times the amount he would have got in former days; allowing the same number of fish, he would get 750 *l.* of income, instead of his present rent of 580 *l.*

3306. Earl *Cawdor*.] How do you propose that Mr. Mackenzie should fish?
As in former times, with the net and coble.

3307. Are you aware that the net and coble were used upon Mr. Mackenzie's property?

Yes; we have the best authority for saying it was so fished.

3308. *Chairman*.] Are you prepared to say that Mr. Mackenzie does not now take a larger quantity of fish by means of stake and bag nets than he formerly took by means of net and coble?

I do not believe there is any great difference in what he takes, but what he does take is at very considerable expense.

3309. Earl *Cawdor*.] What do you suppose to be his reason for fishing with the stake net, instead of fishing with the net and coble?

It is a mistake altogether; if he fished entirely with the net and coble now, the fish being reduced to what they are, he would not at once get the large increase which I spoke of, but he would get it if the River Ness was restored to its former state.

3310. *Chairman*.] You do not think the public is compensated by the increased quantity of fish taken on the sea coast for the small quantity taken in the river?

Most decidedly not; I believe that is clearly proved.

3311. You are confining your observations, I presume, to the particular locality with which you are connected?

Yes.

3312. Earl *Ducie*.] Has the total take in the River Ness and Beaully and in the estuary decreased?

Very greatly; there is not one for a hundred that used to be taken, or anything like it. The fishings of the town of Inverness used in former years to be let for 1,340 *l.*; the same fishing does not now fetch 120 *l.*; and that is a sporting rent; 70 *l.* of it is for mere rod fishing.

3313. Are you acquainted with the rents paid for fisheries in the rivers in Inverness, and the rents paid for fishings in the sea in that neighbourhood?

I am partly.

3314. Do you know whether the total amount now received in those separate localities is as much as it was formerly?

Nothing like it, by any means.

3315. Taking the whole fishings together?

Taking the whole fishings together, it is not a third of what it was; if the take were now as it was then, from the great increase in the value of the salmon, the income from those rivers would be something very large indeed. I do not think

think it could possibly be under 12,000 *l.* a year. There is no reason it should be less than the Spey; it was always considered as a river equal to it; in fact with the Beaully, there are two rivers.

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W. F. Tytler.*

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3316. To what do you attribute that falling off in the rents, and consequently of the fish?

To the stake and bag nets alone.

3317. Has there been any increase of poaching in the upper waters?

No, I do not believe it.

3318. *Chairman.*] Are you aware that the average market price of salmon is not higher in London now than it was 20 years ago?

I am quite aware of that; but there are the Irish fish as well as the fish from Norway.

3319. Are you not aware that the Scotch salmon bear a higher price in the market than either of the other descriptions of fish?

I am aware of that.

3320. If that be so, would not the price be proportionately higher?

I think not, if it is kept down by foreign salmon.

3321. *Earl Ducie.*] Are you acquainted with the nets near Fort George?

Yes, I have seen them.

3322. To whom do they belong?

The principal part of them belong to Mr. Mackenzie of Flowerburn; they are the destructive ones, in consequence of the formation of the coast; they are upon the north side of the narrow entrance to the Firth of Ness, and the tide setting in from the north, comes with great rapidity up the southern coast, and the fish are whirled right across over into the bend, and they are either captured or dispersed at that spot.

3323. Are those fishings valuable?

The greater part of them are not so. There are three nets belonging to the Earl of Cawdor upon the south side, and I believe the whole rental for them is 30 *l.* a year. I believe that they are very destructive to the Ness fish.

3324. If those nets were entirely removed, do you suppose the owner would suffer much loss?

I think he might make up 30 *l.* a year.

3325. *Earl Cawdor.*] Do you believe that the fish come from the north and follow the northern shore of the Moray Firth in coming to Inverness?

No, I believe that they strike down right into the Firth; they will follow whichever coast they first meet.

3326. Do you think that this net, which is at the extremity, is any injury to the Ness and Beaully?

Yes, I think it is; and only to the Ness and Beaully. I do not think it is much injury to the Nairn.

3327. How far is it from the Nairn?

It is about four miles, I think; it is half-way between Fort George and the Nairn by the Admiralty chart.

3328. You proposed by that Ness and Beaully Bill to put down a great number of stake nets and bag nets, did not you?

We did at that particular spot.

3329. How many?

I think 11 or 12 belonging to Mr. Mackenzie of Flowerburn; there are three fly nets belonging to Earl Cawdor; there are three on the opposite side of the coast belonging to Mr. Bailie of Dochfour and to Mr. Miller; and there are a few inside, but they are comparatively valueless.

3330. How many did you propose to destroy?

About 20.

3331. Some of those were of considerable value?

They were in former years.

(135.10.)

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3332. Mr.

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3332. Mr. Mackenzie's, for instance?

His are outside of the Firth, with the exception of three.

3333. Did you give any notice to any one of those persons that you were about to take their property by force from them?

I suppose that every proper step was taken.

3334. What notice was given; it may be quite proper not to give notice?

I cannot state what our agents did in the matter.

3335. *Chairman.*] Within what limits was it proposed by that Bill to prohibit the use of stake and bag nets?

Within five miles of what we determined to be the mouth of the river.

3336. What was your definition of the mouth of the river?

The entrance is what I conceived to be the mouth; the entrance to the narrowest part.

3337. Are you aware that there is very great difficulty in defining the mouth of a river; some propose to define it as the point where the fresh water joins the salt water at low-water flood tides; I wish to know what is your test?

If it is merely the mouth of the river that is to be defined, I should be inclined to take what the Court of Session determined as fixing the mouth of the River Tay. It is the extreme end of the sand bank formed by the river bringing down the debris, and depositing it in still water, where it joins the tide.

3338. Was it so defined in your Bill?

No, we did not take so much as that: we did not wish to exceed the bounds which are fixed by Home Drummond's Act, namely, five miles from the mouth of each river, for the assessment; so we kept it as far as we possibly could within the mark.

3339. Are you acquainted with the Tweed?

No, I am not; I merely know it.

3340. You do not know what has been the effect of the removal of the stake and bag nets in that river five miles from its mouth?

I do not. I have prepared a comparative plan of the Tay and the Ness, which I shall be glad to submit to the Committee (*producing a Plan*).

3341. Are there any cruive dykes on either the Beauly or the Ness?

There were upon the Ness in former years, but they have been entirely removed.

3342. There are no fixed engines in either of the rivers?

In the Beauly there is a cruive dyke.

3343. *Earl Cawdor.*] Is it constructed in a way to enable the fish to get up easily?

That is not generally the object of cruives.

3344. *Chairman.*] What is your reason for thinking that the proprietors of rivers have a right to erect fixed engines, when the proprietors of fisheries on the sea coast have not?

They seem to have had old grants for it; and where the statutes put down yairs and stake nets along the coast they always excepted cruives in rivers. I think, where the rivers do not belong to one proprietor, that it would be very advisable that they should be put down; but if the river belongs entirely to one proprietor I do not see how they could be removed.

3345. In the case of the ancient grants of which you speak, when the proprietor is not the proprietor of the whole river, could those cruive dykes be removed without making compensation to the grantees?

That is a question of law; I should not think that they could be well removed.

3346. If compensation were to be made, from what source would you derive that compensation?

I do not know of any source that it could be derived from.

3347. Lord

3347. Lord *Colville* of Culross.] Can you suggest any system of police for the supervision of cruives and stake nets, and nets in general in Scotland, to see that there is a proper Saturday slap given to them?

No, I do not think that any such system could be worked with any satisfaction.

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3348. Is there any coast guard on that part of Scotland?

I believe there is; I am not very sure about it; I believe in part of Ross-shire there are some coast guard stations.

3349. *Chairman*.] Are you of opinion that the fishing season begins and closes at the proper time?

I think not in the Ness.

3350. Are you now referring to the commencement or the close of the season?

To both.

3351. What should, in your opinion, be the time for opening and closing the fishing season?

I do not think we could do better than go back to the old dates; not the very earliest that has been adopted; the Ness was opened at one time in November, and the 10th of December was the last date known for opening the river.

3352. And for closing it?

And for closing it, the 12th or 15th of August.

3353. That you think would be a proper time for closing?

I think it would.

3354. Have you any further suggestions to offer to the Committee for the amendment of the law?

I wish to point out to the Committee the close similarity there is between the Firths of the Beauly and the Ness and the Firth of the Tay. The width of the strait or entrance into the Firth of Tay at Broughty Ferry is seven furlongs; that into the Firth of Ness, at Fort George Ferry, is six furlongs; so that the entrance into the Ness and Beauly is narrower than that into the Tay. The tide flows up the Tay for 26 miles above Broughty Ferry; up the Ness from Fort George Ferry 10 miles; up the Beauly from the same point 20 miles. The broadest part in the Firth of Tay is 3- $\frac{1}{2}$ th miles; that of the Firth of Ness the same. The extent of water surface inside the above two ferries is, on the Tay, about 34 square miles; on the Ness, 22; on the Beauly, 8; or 30 square miles for the last two rivers. On the Tay, these 34 square miles have been entirely cleared of all sorts of fixed nets; beyond the ferries seawards, the shores of the Tay have been cleared for 6 $\frac{1}{2}$ miles on the north coast, and 14 miles on the south, or for upwards of 20 miles at the mouth. On the Ness the distances proposed are 6 $\frac{1}{2}$ miles on the north and five miles on the south, 11 $\frac{1}{2}$ miles in all for the two rivers, the Ness and the Beauly; giving a water-surface for the first river equal to 40 square miles, for the last two 15 square miles. The distance between the points of limit on the north and south coasts of the Tay is 10 miles. On the Ness the points proposed are 5 $\frac{1}{2}$ miles apart; that is seaward, just at the expanse of the water. On the River Tweed the coast has been cleared for five miles on the south side, and four miles to the north of the mouth, and five miles seaward, giving an area of 45 square miles, instead of 15 square miles that are allowed in the Ness and Beauly as an artificial estuary to that river. There is no estuary which can be called mouth to the Tweed, but it has been decided by Act of Parliament that an artificial one should be created, and that extends five miles out to sea, which, in my view, is a very excellent regulation, as it would prevent an encroachment by fishers, on pretence of fishing for white fish or herrings. There is a case which has just been decided in Ireland the other day, which has cost a great deal of money, and given a great deal of annoyance. I think it is the case of Miss Sheil, against a man of the name of Gallen who had established himself at the mouth of the River Earne, under the pretence of fishing for herrings, and was destroying the salmon.

3355. *Chairman*.] Have you heard that notwithstanding the removal of all
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the fixed engines within certain limits, both in the Tay and in the Tweed, the quantity of salmon that ascend those rivers for the purpose of breeding is said to have materially decreased?

Since the nets were removed I have not heard that.

3356. It has been stated that never has been so bad a fishing season as the present in the Tweed.

I have not heard that.

3357. Lord *Colville* of Culross.] Are sweep nets used in the Firth of Inverness?

Not now; by sweep nets I conclude your Lordship means net and coble.

3358. The depth of the Firth of Inverness is much greater in the channel than that of the Tay, according to the charts. Do you not think that in consequence of the much greater depth of the channel of the Firth of Inverness as compared with that of the Tay, and therefore the greater difficulty of fishing it, that more fish must escape the nets on their way up to the Ness and Beaully than those going up the Tay?

We have no proof of that.

3359. Is it not your opinion that that would be the case where the channel cannot be fished with the same facility that the channel of the Tay can be fished?

It is possible, I think; but they have not only stake nets at the mouth of the Ness and Beaully Rivers, but they throw out the bag nets beyond into the deep water, so that the channel left is exceedingly narrow indeed, and the current at the same time coming off the southern shore carries all the fish into the bag nets.

3360. Would it not be your opinion that more fish had the chance of going up the river in the Firth of Inverness than they have in the Tay?

Perhaps they might.

3361. *Chairman.*] Are any sweep nets used in the Ness or Beaully?

In both.

3362. Are they used one behind the other so as to prevent the fish from ascending the river?

They have not been used upon the Ness in that way for the last three years, at any rate.

3363. Are you able to prevent that mode of using the sweep nets?

Having had the fishing in my hands, I know it has not been done.

3364. Lord *Stanley* of Alderley.] Were the sweep nets formerly used in that way, so that one should be continually succeeding the other?

It was very likely they were so employed when it would pay, but it was scarcely ever worth keeping up two crews.

3365. Was it done previously to your time in the Ness?—Not to my knowledge.

3366. *Chairman.*] Nor in the Beaully?

I cannot answer for the Beaully.

3367. Lord *Stanley* of Alderley.] Will you be good enough to state to the Committee what steps should be taken with a view of restoring the salmon fishing to the former prosperous condition in which it existed?

I think it is only necessary to go back to the old law and put down the stake nets or other fixed engines universally over the whole coast; that was most clearly the case by the old laws of the country; the only exception that was ever made, was in the case of the Tweed and in the Solway Firth; and everywhere else all parties concerned with the coast or the land were called upon to destroy them, under a heavy penalty.

3368. Do not you think the law made a distinction between fixed engines in rivers and estuaries of rivers and in the sea that could not be considered as a mere estuary?

I think not; the statutes clearly state that it is in waters where the tide ebbs and flows, and this exception of the Solway Firth proves that it was intended over the whole coast with the exception of that portion.

3369. Did

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3369. Did not the decision in the case of the Tay seem to imply that the Court considered that the stake nets were only legal in a river, and in the estuary of a river, or a certain point from the mouth of a river; and would not it, therefore, be a fair inference that they supposed the establishment of fixed nets or engines beyond that was not legal?

It was considered so in that case, but I think erroneously. I think that a mere mistake in one of the statutes was the cause of its being so decided, and that mistake was avoided in all the succeeding statutes. The words "fresh water," are introduced evidently by mistake into one of the statutes, and the whole case was founded upon that.

3370. You think that the law applies equally to the open sea as to the rivers and estuaries of the rivers. That it is illegal to have any fixed engines on any part of the coast of Scotland or in the rivers of Scotland; and, in your opinion, the way of restoring the fisheries to their former condition, would be to put down fixed engines under all circumstances in all places?

Yes.

3371. Do you think the persons who have for years had fixed engines and fixed nets for the taking of salmon, are not entitled to any compensation if those engines should be removed, and they be deprived of the benefit which they have hitherto received from the fishings?

I think not. I think they have been taking advantage of their position, I may say, to rob others.

3372. Do you think it would be equally just to remove all cruives in rivers where salmon have hitherto been taken, though the right to erect such cruives has been granted by charter or established by prescription?

In that case there is an established right to the cruives; that has been recognised by every statute that has been enacted; it would be highly desirable that they should be done away with. Lord Lovat, in the case of the Beauuly, when he found there was any difficulty in the matter, at once volunteered to give up his cruive.

3373. Are you aware that in Ireland, under the Fisheries Act in that country, and by old established law, what was called the King's or Queen's share always existed in all cruive dykes; that is, that there was a given space by which the fish could have free access up the rivers at all times?

I have heard so.

3374. Do you think it would be right to establish such a provision in Scotland with regard to the cruives in the rivers in that country?

I think if cruives are retained, it would be a very excellent plan that there should be such a provision.

3375. Do you also think that there should be a provision with regard to mill dams, which at present impede the progress of the salmon, either by means of openings in those dykes or by ladders, so that the salmon should be able always to get up the rivers?

Yes, I think so; I believe that the law can effect it now, but it is a very difficult and expensive process.

3376. How is it that the law is defective now?

I understand that it can be done, and we proposed it in the Ness upon several occasions, but we found there were considerable difficulties in the way.

3377. Do you think it would be desirable with regard to all violations of the law, as it at present exists, or as it can be made by the Legislature, to have some more summary mode of proceeding, than by the present dilatory and circuitous mode?

Yes.

3378. What course would you adopt then with regard to the enforcing of the law in a summary and easy mode?

I am not sufficiently a lawyer to decide that.

3379. Do you think it would be desirable, by an information before a justice of the peace or sheriff's court, that these matters should be decided, rather than having

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having to go for an order of the Court of Session, or to the superior courts in Edinburgh?

Yes, decidedly; the more simple it is made, and the more immediate the punishment for the infringement of these laws, the better.

3380. From the great difficulty of enforcing the law at present, it is almost always inoperative?

Quite so.

3381. *Chairman.*] Do you think there would be any objection to extending the fishing season for anglers after the close of the net fishing?

I do not think it would do any real injury to the fishings.

3382. It would be an advantage to the upper heritors, would it not?

I think it would; I think it would keep people about the river, who would have an interest in it to keep off poachers.

The Witness is directed to withdraw.

Mr. Joseph Johnston is called in; and examined, as follows:

Mr. J. Johnston.

3383. I BELIEVE you are tacksman of fisheries in Montrose and the Isle of Skye?

Yes.

3384. Have you had considerable experience in salmon fishing for many years?

All my life.

3385. Has the quantity of fish taken at your fishings increased or decreased the last few years?

Within the last three years they have increased.

3386. *Lord Stanley of Alderley.*] Do you speak of the sea fishings only, or the sea fishing and the river fishings?

I have sea fishings and river fishings; we make no distinction.

3387. When you speak of increase, do you think that the increase in the last three years has been in the sea fishings or in the river fishings?

The river fishings are a very small proportion of the fishings; our fish is almost all taken on the sea coast.

3388. At Montrose?

Yes.

3389. Are there no fish taken in the Esk?

There are fish taken in the Esk, but the proportion is very small to what is taken in the sea.

3390. Is the proportion smaller or larger than it used to be?

It is much the same that it has been for the last 30 years, I should think.

3391. *Chairman.*] Do you fish by means of stake and bag nets on the sea coast?

Yes.

3392. By what means do you fish in the river?

The net and coble.

3393. *Earl Innes.*] How long have you used the stake and bag nets on the coast?

I went to Montrose to take charge of the fishings in 1826; at that time there were stake nets and a few bag nets on the coast.

3394. Previously to that, were those fishings worked by the net and coble?

Previously to that they were fished from 1816 partially with stake nets, but mostly with net and coble.

3395. *Earl Ducie.*] Have not the rivers been rather short of water for the last three years?

Comparing

Comparing 1826 with the later periods, I should think (taking the North Esk as a rule) that the quantity of water in the summer is about a foot less than it was formerly.

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3396. Have not the sea fishers, therefore, had a greater opportunity of catching the salmon, because they were not able to ascend the fresh water?

(Of course, when there is no fresh water the fish would not come near one place more than another.

3397. Therefore, the last three years have been peculiarly favourable to the sea fishers?

I mean to say, that for a good many years back the water in the river is considerably less in the summer, when the fish are most plentiful; whether owing to the drainage of the land, or some other reasons, we have nothing like the floods nor the continuance of them that we had formerly.

3398. Lord *Colville* of Culross.] The rivers run out quicker?

Yes; the kind of spates which suit the fish run very soon off; those heavy floods put the fish away from the river, while the small floods bring the fish into the river.

3399. *Chairman.*] Has the take of salmon in the Esk materially fallen off in the last few years in point of quantity?

My confirmed opinion is, that the take of fish on the Montrose coast is not perhaps equal to what it was formerly, on the average, but that arises from other reasons; the whole coast is fished from Peterhead to the Forth with fixtures, therefore there is a proportion of the fish taken at different parts.

3400. Lord *Colville* of Culross.] You have said that the fish have improved on that coast the last few years; do you think that arises from there being more fish, or from the improvement in the net fishings, which enables you to catch more?

I think there is more fish.

3401. Lord *Lovat.*] Has the number of bag nets increased much?

Not within the last 15 years on our coasts.

3402. Lord *Stanley* of Alderley.] What number of nets belong to your taking?

It is difficult for me to say just now, but the number is very great.

3403. Under what authority do you hold them; are they leases, or grants from the Crown, or held from individual proprietors?

They are leases from the proprietors.

3404. For what time?

I have the two principal fishings just now for 10 years.

3405. Who are they from?

The one is from Stratton Kirkside, and the other is from Mr. Scott of Commieston, and Mr. Gordon of Charlton, for which two fishings I pay 2,100 *l.*

3406. Are those south and north of Montrose?

They include part of the river on both sides of the coast, and on both sides of the North Esk.

3407. Lord *Colville* of Culross.] What fishings have you in Skye?

I have the fishings which belong to Lord Macdonald. I have the right to fish any part of his property except some small rivers that he reserves for rod fishing.

3408. Is the stake net fishing in Skye remunerative?

We do not fish with any stake nets.

3409. Simply net and coble?

Simply with bag nets.

3410. It is too rocky for stake nets?

Yes; the fish are not so very plentiful that they would warrant such a thing; we do not fish near the river; we fish outside the loch on the coast; we tried it in the lochs near the river, but the produce was very small.

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3411. What

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3411. What lochs do you fish in in Skye?

I may say that we fish all the way from Broadford to Portree and from Portree to the point of Stainsal I pass over Loch Slegan; I do not do anything there.

3412. Lord *Stanley* of Alderley.] There are no rivers from Portree northward, are there?

Very small; there is not one bay in the Isle of Skye but there is fish in the month of July.

3413. Lord *Colville* of Culross.] Is there much spawning in the Isle of Skye?

From inquiries that I have made I find there is some spawning in some of the small rivers, and we endeavour to protect them as well as we can in the close season.

3414. I suppose the take of fish that you get from Skye is chiefly grilæ, not many large salmon?

We get a good many large salmon.

3415. *Chairman*.] Are the rents paid by you higher or lower than the rents paid by your predecessor in those fishings?

I should think the rents of the north or Montrose fishings are quite as high as they ever were at the present moment; that is, putting them as one.

3416. Do you think the quality of the fish taken in the sea coast fishings is superior to those taken in the river fishings?

Yes; they are worth more money in the market; they are a better quality.

3417. And the supply more regular?

Far more regular; we do not depend upon floods.

3418. You think that the public, whatever may be the case with the proprietors of the river fishings, have rather an interest in the maintenance of the sea coast fishings?

I do so.

3419. Earl *Innes*.] Do not you think that fish caught where the tide ebbs and flows are equal in quality to those caught in the stake and bag nets?

When I say they are not so good in quality I would fix a period, say after being 24 hours in fresh water.

3420. *Chairman*.] Do you think the present close season is too long, that it ought to close sooner than it does at present?

My opinion is that the close season should not be shorter than it is; the same number of days should be allowed.

3421. Do you think it should close earlier than it does now?

I was about to say, that while I believe that the number of days that are now occupied in the close season should not be lessened, that certain rivers should close earlier than others; but the same number of close days should be observed.

3422. You think rivers vary in that respect?

Yes, I am certain of it.

3423. Some are later, and some earlier?

Yes.

3424. To whom should be left the discretion to fix when the fishing season should commence, and when it should close?

My opinion is, that it should be left in the hands of the proprietors of a certain district, but that they should be restricted to having the proper number of days.

3425. Do you ever catch any foul or spent fish in your fixed nets?

I seldom or ever saw any. I saw one this year; about the 20th of May.

3426. Lord *Colville* of Culross.] Where was that net?

It was taken in a net at the Buddon, about a mile and a half from the estuary of the South Esk.

3427. *Chairman*.]

3427. *Chairman.*] If you do take any such fish, you put them back into the sea?

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Yes, unless they are killed by accident.

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3428. Lord *Colville* of Culross.] Are many fish killed in your stake and bag nets injured by bad weather in consequence of your being unable to get to them?

I could not say the number that are destroyed, very few, comparatively, because generally the nets break before the fish die. I have seen, in a very severe storm, near one cwt. of damaged fish got, and there would be 3*d.* a pound off the value.

3429. I suppose that the existence of the stake and bag nets upon the sea coast attract seals and porpoises very much?

I do not think that. I think the seals and porpoises were as plentiful on the coast when there were not stake and bag nets, and I presume there would be more.

3430. Why do you presume there would be more?

Because there would be fewer of them killed.

3431. Earl *Innes.*] Are your bag nets placed at the end of the stake nets?—Yes.

3432. What distance to sea do your bag nets extend beyond the stake nets? One line of nets that we have just now, which we call a competing line, that is, with another tenant, we run six nets off in a line.

3433. Six other nets out to sea?

Yes, one after another.

3434. *Chairman.*] To the extent of how many yards?

Each net would be 70 yards; that will be 420 yards.

3435. Lord *Lovat.*] Is that beyond low-water mark?

Yes, beyond low-water mark.

3436. *Chairman.*] What is the depth of the water in which your nets are placed?

Our bays are very shallow; our bag nets mostly all take the ground at low water in spring tides.

3437. Therefore there would be no room for the fish to pass under in ordinary circumstances?

I think there is more pass under from the shallowness of the water than the deepness, because the nets stand so imperfectly.

3438. Do you believe that the stake and bag nets have the effect of deterring and driving away shoals of salmon that are approaching, even when they are not taken in the nets?

I do not think so. I think they are very effectual in taking fish.

3439. Lord *Colville* of Culross.] Do you think that salmon spawn in the sea?

My faith in that has been very much shaken. I have some doubts that they do spawn in the sea.

3440. You once thought so?

I have some doubts now. I did not believe at one time. I begin to think they do.

3441. Lord *Stanley* of Alderley.] Why do you think so?

For instance, I am tacksman of a small fishing, near the Tweed, that they called Marshall Meadows, within the limits of the Tweed Act. It is on the March between Scotland and England; and, after the Act was passed last year, I was very particular at the end of the year to ascertain what fish there were. I had never seen them. At the last day of the fishing I got a great many brown salmon, quite full of spawn.

3442. Do you mean kelts?

No; the fish full of spawn, that you would think were ready to spawn; and

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I ordered them to send them on to Montrose, that I might see what they were like. I got some 20 or 30, which were very full of spawn, very brown, and they were fish close to spawning.

3443. Earl *Innes*.] Are you aware that the Tweed was very dry till the close of the fishing season, and that the fish could not get into the river for want of water?

I do not know.

3444. Lord *Stanley* of Alderley.] Do you often take brown fish in the sea? I never saw them but there.

3445. Had they the same colour that fish have that have been a long time in the river?

The very same as if they had been lying in the river for two months.

3446. Earl *Innes*.] On the part of the coast of which you speak, is not there a great quantity of sea-weed?

Yes.

3447. Do not you think that the colour of those fish was attributable to their lying among the sea-weed?

I think it has that tendency; at the same time the fish were so very full of spawn.

3448. Was that at the end of September?

It was just the last two or three days of fishing.

3449. Then, of course, the fish would be full of roe, it is natural to suppose? I never saw them so full in the Tweed before.

3450. Lord *Stanley* of Alderley.] Do not you suppose they were fish waiting for sufficient water to ascend the river?

I do not know; or whether they were going to spawn in the sea that they were in that condition; there is a strong current and small grave outside in the sea.

3451. Is the reason which induces you to hesitate in the opinion which you formerly came to that salmon do not breed in the sea, because at the end of the season last year you took those brown fish which were full of spawn, and therefore you think they spawn in the sea?

I would not say positively, but I have a certain amount of belief in it.

3452. Lord *Colville* of Culross.] Do you think that the fish are prevented from entering into the Tweed at all in consequence of the foul state of the water from manufactories, and so on?

I am not aware that there are many manufactories on the Tweed.

3453. Lord *Lovat*.] Do the manufactories at Montrose affect the South Esk at all?

It has almost finished the South Esk as to the river fishing.

3454. From what cause?

From the increase of manufactories; the river fishing of the South Esk is at the top of the estuary, about five miles up, or up to Brechin, is about eight miles from the mouth of the river; there are bleaching works, and paper works, and gas works, and I never see anything, except trout, hardly, spawning in the river; few large fish are got. I am satisfied that the manufactories is the cause.

3455. Have you the fishings in the South Esk?

I have; and the same thing applies to the North Esk in the river.

3456. Earl *Innes*.] How long have you rented the fisheries in the Marshall Meadows?

I think this is the third year.

3457. How was that water fished before you occupied it?

I think it was fished by a man of the name of Weatherstone.

3458. By bag-nets?

I understand it has been fished by bag nets the last 30 or 40 years.

3459. *Chairman*.] Do you believe if the fish that ascend the river for the purpose

purpose of spawning were properly protected in the river, that they would be sufficient in number for the purpose of keeping up the stock of salmon in spite of the existence of the stake and bag nets?

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Yes; my opinion is, that there is never any complaint at the end of any fishing season of the want of breeders; there is always plenty in the river, therefore if they were protected there ought to be plenty. In connexion with that I would say that the rod fishing in our district has been destructive of more fry than I catch with the nets on the sea coast, for there is no other fish can get hold of the hook, if there are fry in river, because the fry takes any kind of fly that you offer to it.

3460. Lord *Colville* of Culross.] Is it not illegal to catch these fry?

It is.

3461. Are not the fry in some rivers protected very closely?

So they are, but the protection is not ample enough.

3462. Can you expect any great protection to be given by the upper heritors who never have the chance of catching a fish?

I do not see that the upper heritors have any complaint to make. I see scarcely any reduction made in the value of their property; they never had any property in their fishings; therefore, I think, the parties who have the large fishings on the coast have the right to the rivers to breed in.

3463. Do you think that the upper heritors ought to go to the expense of protecting your fish if they never catch any themselves?

I do not think that; I think the lower proprietors are to blame themselves that they do not assess themselves sufficiently high to protect the rivers; I think the blame lies there.

3464. *Chairman.*] Would you see any objection to an extension of the period for rod fishing for a limited time after the closing of the net fishing?

My objection to an extension of the rod fishing in these small rivers is, that the rivers are so small that a good rod fisher would kill everything that was in them.

3465. Lord *Colville* of Culross.] Are you not aware that salmon, a short time before they spawn, will not take a fly?

I do not know; if they do not a fly, they will take something else; a worm or anything else you like to give them.

3466. That is poaching, is not it?

Yes; and the difficulty is to know what is used; who is to know whether a fly is used, or something else.

3467. *Chairman.*] Have you any further information to give the Committee, or any further suggestions to offer for their consideration?

All I would say is, that since the introduction of stake and bag nets a very large number of men have been employed compared to what were previously employed; and I believe there is a great additional amount of value taken out of the sea.

3468. Lord *Stanley* of Alderley.] Do you think that a great many more people are employed in the stake and bag-net fisheries than would be employed in working with the net and coble, where the fishings could be so worked?

I have calculated in the North Esk, giving it the utmost limits I can, when it was fished with the net and coble only 42 men were employed; there are now 97.

3469. Was the quantity of fish taken at the time they used the net and coble nearly equal to that which is now taken?

I cannot speak positively; but I can say this, that in 1816 there was the greatest salmon fishing that was ever known in Scotland, and on the North Esk, and 1817 was the worst.

3470. What quantities were taken at that time?

The quantity I could not say, because I have not the records; I can only refer back to a fishing that I was at that year; that was a fishing in Sutherlandshire,

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landshire, called the river Naver; at that time the fish were pickled, and there were 32,000 kitts caught in that district; and in the next year there were just 800.

3471. Comparing the quantity of salmon taken at the time the fishings at Montrose were worked with the net and coble, and the quantity taken since the introduction of stake and bag nets, can you inform the Committee what was the difference between the two periods?

Unless I were to answer that question generally, taking in the whole of the fishing in that district, or in Scotland, I could not speak to that.

3472. Taking the district in the neighbourhood of Montrose?

Looking at the statistics that I have been able to see, I find that the quantity of salmon taken in Scotland for the last 30 years, is fully more than the quantity taken previously.

3473. You cannot assert, of your own knowledge, that the quantity of fish taken now by the stake and bag nets in the neighbourhood of Montrose, is greater than the quantity that used to be taken by the net and coble?

I think it is not greater; I have stated that already.

3474. Then it would appear that an equal or a greater number of fish was taken formerly in the neighbourhood of Montrose, with the net and coble, than is now taken by the stake and bag nets; and you have also stated that the expense of working the stake and bag nets is greater than that of working the fisheries by the net and coble; is that the fact?

Yes; I have stated that, but I have stated more.

3475. Why do not you revert to the practice of fishing by net and coble; would not it be as efficacious in taking an equal supply of salmon as the stake and bag nets?

I do not think it would; you do not get the regular supply of salmon, and you do not get the same quality.

3476. I understood you to say that the salmon taken in the sea were a superior quality to those taken in the river; why are those taken by net and coble of an inferior quality to those taken in the stake and bag nets.

You would not get the same salmon in the rivers.

3477. I am now limiting myself to the sea?

You would not take them in the sea with net and coble.

3478. You have stated that your impression was, that in former times when those fishings were worked by net and coble, that a larger number of fish were taken than has been taken since by the stake and bag nets?

I mentioned that in reference to a certain locality, that is the river; there have many reasons arisen since why they would not be got in the rivers, or in the entrance to the rivers.

3478*. *Chairman.*] Are there many stations now fished with the bag and stake nets which could not be fished by the net and coble.

Certainly.

3479. *Lord Stanley of Alderley.*] How do you account, although you have more stations, for fewer fish being caught than were formerly caught?

When I said that there were fewer fish caught, I had special reference to fish taken by net and coble in rivers, and in the mouths of rivers. I do not say that there are fewer fish taken in the whole than there were formerly; for instance, when I spoke of so many fish being taken, I spoke of Montrose Bay, I did not speak of Lunan Bay, which stands at a value of some 800 l. or 900 l. a year. I speak of that part to Chancellor's Head, in the mouth of the Tay. I had no reference to any other part.

3480. That is a very considerable distance; but the fishings in the Esk, at the mouth of the Esk, and in the Bay of Montrose, have diminished from the period you formerly spoke of, have not they?

I merely referred to the river produce, and not to anything else.

3481. *Lord Lovat.*] Do you consider that the fish caught in Lunan Bay are Esk fish or Tay fish?

I believe

I believe that they are from both rivers ; I believe there is plenty taken that was never in any river.

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3482. Do you consider that the fish go along the coast till they find their rivers ?

I do not think so, and I will tell you my reason ; the fish come upon the Montrose coast when the wind is south-west, but if the wind comes to the north-east, the fish go off the coast ; that is a proof that the fish are always going to leeward, or going with the wind.

3483. Lord *Stanley* of Alderley.] Do you think that it would be possible to have a Sunday slap in your stake and bag nets ?

It is quite possible to make a Sunday slap in either bag or stake nets, but it would almost amount to putting an end to that mode of fishing.

3484. If the river fishers are obliged to have a Sunday slap both in net fishings and cruive fishings, do not you think it is fair that the fishers on the sea coast should be subject to the same restrictions ?

I think they should not ; and the reason is this : on our coast we have, at any rate, upon the average, a loss of a day and a half every week, taking the season from the beginning to the end, from the effects of the net being put out of order by bad weather ; and again, if we are compelled to make openings in our nets we cannot do as the men in the river can, pull away the net just at the very minute ; but it may be bad weather when we may have to put them down, and we may have to wait two or three days, when there would be, perhaps, very good fishing before we can fish with our nets, because we cannot set them.

3485. Earl *Ducie*.] You say that bad weather would cause the loss of many days' fishing in the course of the year ; do not you think that in rivers losses are occasioned by the destruction of cruive dykes by floods ?

I do not know that any great loss could arise to the rivers, supposing there never was a cruive dyke, from my knowledge of rivers if the cruives are legally constructed, almost all the fish below 11lbs. will go through.

3486. Do not you know, that when a cruive dyke, in which fish are caught, is destroyed, a great number of fish, that would otherwise be caught, must ascend the river and be lost to the proprietor of that fishery ?

Yes.

3487. Therefore he sustains a loss ?

I know that, perfectly.

3488. Are not the fresh water fishers equally liable to loss from bad weather with the salt water fishers ?

It is very seldom that an accident happens to a cruive dyke except it is in the month of March or April, but never later in the season. I never saw one of them down later than that.

3489. Lord *Lovat*.] Are not there floods in rivers during which the fishers are not able to use either the net and coble or the cruives ?

Yes. But it is very rare in extreme floods, that many salmon enter the rivers.

3490. Lord *Colville* of Culross.] With regard to what you said just now of the mode in which the fish approach the coast, do you think that the fish come from the north.

That used to be an opinion held by all old fishermen, but I cannot say that I have any faith in it.

3491. Do you think that herrings come from the north ?

It looks very likely ; at Lewis we have them first, then we have them on the Wick coast, and then we have them further down.

3492. Have you ever known people who have seen shoals of herrings come from the north that could be traced by the birds following them ?

I have heard people speak of them being at Lewis, and in five or six days after I have seen them in Thurso Bay, and then in about ten days after that, they have been on the Wick coast.

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3493. You do not think that salmon follow a similar track ?

I do not see why they should not ; for this reason. our ships coming from Norway and the Baltic see salmon 40 and 50 and 100 miles off the coast, and the question is, where are these salmon going ; are they coming to the Scotch coast, or going to Sweden or Norway, or where are they going ? I saw a gentleman from Norway the other day, who is a practical fisher, and he says that he could not tell any difference between their salmon and a Scotch salmon. Salmon are got in all northern latitudes, and through all Scotland, and the islands where there are rivers, and also where there are none.

3494. Lord *Stanley of Alderley*.] Did you ever know anybody who caught a salmon in the open sea ?

I think that is so very easy a thing to do, that I never thought about it.

3495. You never heard of its being attempted ; if it is such an easy thing to do, why has not it been attempted ?

Mr. Thom, of Aberdeen, told me when he had the Bay of Nigg, four or five years ago, he went off the land a mile and a half, and set a couple of bag nets. I asked whether it paid him, and he said, " Pretty well ;" he got 20 or 30 at a time.

3496. You have spoken of fishermen that have met salmon quite in the open sea ; have you heard of anybody who has caught salmon quite in the open sea ?

It has never been followed as a trade, and there have never been any proper nets employed ; if there were drift nets upon the same principle employed as for herrings, I have no doubt they would find that there are salmon in the open sea.

3497. You never heard of salmon being caught in herring nets ?

No ; I have been connected with the herring trade for the last 30 years ; I have seen plenty of sea trout caught by nets, and those are sent up to Billingsgate in the winter time. The mesh of herring nets is too small for salmon, and the herring nets are generally below the surface of the sea, from two to 10 fathoms.

3498. Lord *Colville* of Culross.] Have sea trout and salmon the same habits ?

I do not know ; I scarcely think they have ; if sea trout was like salmon, there would be a great many more taken in the bag nets or stake nets.

3499. Lord *Stanley of Alderley*.] You do not take many sea trout in the stake and bag nets ?

No, they do not go along the leader like salmon.

3500. Earl *Ducie*.] You have stated that you were the lessee of the Marshall Meadow fisheries ; do you observe the Saturday slap in the bag and stake nets there ?

I only began yesterday ; I am doing it to oblige the proprietor ; he thinks it will pay him, and it will be observed of course according to the Act of Parliament.

3501. Lord *Stanley of Alderley*.] In that case the Act requires it, and you mean to observe it ?

Of course we must.

3502. Earl *Innes*.] Could you not observe the same Saturday slap in your Montrose fishings, if you observe it in the Marshall Meadow fishings, where the coast is rocky and the water deep ?

I took a lease of that fishing for a term of 15 years at a very low rent ; I supposed it was to yield me a profit of some 150 £., but after the Tweed Act passed, I conceived that the thing was not worth the fishing at all, but to oblige the proprietor, I sent my men to fish this year to see if it is worth anything ; I believe it is not worth anything, and that it will not pay expenses.

3503. Lord *Stanley of Alderley*.] Why will it not pay expenses ?

Owing to the great disadvantages, and the time that will be lost owing to the weekly close time.

3554. You

3504. You consider that those fishings will not be profitable, owing to the provision in the Act of Parliament relating to the Tweed, by which you are required to observe the Sunday slap in the bag and stake nets?

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Yes. I wish further to state, there are parts that are fished with bag and stake nets that can be rendered unfishable, and seldom any damage ever happens to them; for instance, take the Inverness Firth. But it is different in the German Ocean, exposed to the whole weight of the sea; bag nets are set in many parts, in water from five to 60 fathoms, and the nets are not over 16 feet deep. Cruive dykes, where there is only one proprietor, should be fished with close hakes; it saves expense in fishing, and in a great measure prevents fish being lost in rocky ground.

The Witness is directed to withdraw.

Mr. WILLIAM PAUL, is called in, and examined:

3505. *Chairman.*] I THINK you are an Advocate at Aberdeen?

Mr. W. Paul.

Yes.

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3506. You are also the factor to proprietors of extensive fishings on the sea coast, between Aberdeen and Stonehaven?

Yes.

3507. Will you describe the circumstances of those fishings?

The fishings extend for about 5½ miles in length, and are fished entirely by bag nets. The coast is very rugged, so that it would be quite impossible to fish any part of it even with stake nets; certainly not with stell nets, or net and coble in any way. The coast is very much the same there as it is from Aberdeen to Stonehaven, which is a distance of about 16 miles. With the whole of that coast I am intimately acquainted; the total rental of fishings belonging to the three proprietors for whom I am agent, is about 300 £. a year.

3508. Lord *Stanley* of Alderley.] Who are those proprietors?

Mr. Innes of Cowie, Dr. Keith of Easter Muchalls, and the trustees of Dr. Milne, proprietors as such of the estate of Muchalls, the proceeds of which are devoted to educational purposes.

3509. Are those fishings held under charter from the Crown?

Mr. Innes has a charter from the Crown, but Dr. Milne's trustees and Dr. Keith have not. There is doubt whether, as the estate is a barony, they do not possess a right to the fishings by prescription, but they have got no direct charter from the Crown.

3510. Then there is no authority to those two fishings at present?

No, not directly from the Crown; Dr. Keith and Dr. Milne's trustees were associated with the parties who defended the case relative to the property of salmon fishings in the sea, not held by Crown charter; that was tried at the instance of the Commissioners of Woods and Forests, and lately decided in the House of Lords, and they have been negotiating for a lease. A lease has been offered to them at half rent, in the same way as to many other proprietors who are in the same position.

3511. They have not yet taken a lease from the Crown?

Not as yet.

3512. Earl *Ducie*.] It being questionable whether the right of fishing is not incident to a barony?

Yes, they only claim by prescription, founded on a charter of barony, with a grant of fishings generally; I believe that question is very likely to be tried.

3513. *Chairman.*] What would that prescription be, according to the Scotch law?

Forty years; it is quite clear that the prescription runs to within a year or two of the 40 years, at least.

3514. Lord *Stanley* of Alderley.] What mode of fishing has been pursued which gives them this prescriptive right so long ago as 40 years?

I am not aware that any other sort of fishing was ever pursued there than a stationary engine; in fact, it seems impossible.

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3515. Is

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3515. Is not fishing by bag nets a recent introduction; there were no bag nets upon the coast of Scotland 20 years ago?

Much longer ago than that.

3516. When was the first introduction of bag nets in Scotland?

I think generally, about 30 years ago; in some localities for a longer time, but they have undergone considerable modifications and improvements during that time.

3517. You think that there were no bag nets previously to 30 years ago?

Not in their present improved state.

3518. If you claim the right of fishing by prescription, what mode of fishing was used previously to 30 years ago?

I am not prepared to say precisely, because it is a subject of investigation at this very moment, with regard to those very properties, what the precise mode was. I presume if they did not use bag nets, they must have attempted to use stell nets, or some other stationery engine.

3519. Did not you state just now that it was impossible upon that coast to use either stake nets or stell nets, or any other mode of fishing but bag nets?

I think it is impossible to do so profitably, if at all.

3520. Then I revert to the question which I before put to you; can you inform the Committee what mode of fishing was practised previously to 30 years ago on that part of the coast?

I am not aware; I am not even aware whether these persons will be able to show any prescriptive right; it is a mere question at this moment.

3521. Of your knowledge, or from your inquiries, are you aware of any mode of fishing which was pursued upon this coast previously to the introduction of bag nets?

At one or two points, I believe stell nets were in use many years ago.

3522. In your opinion it would be impossible for any other mode of fishing to have been employed but bag nets?

I think so, practically.

3523. Lord Colville of Culross.] Is not that coast between Aberdeen and Stonehaven fished as hard as any part of the coast?

Yes; between Aberdeen and Stonehaven the rental is about 2,270*l.* a year; and that rental has been increasing very rapidly of late years.

3524. *Chairman.*] Has not the quantity of fish also increased very rapidly?

I have some statistics which show that the fish have been increasing within the last 10 or 12 years.

3525. Earl Innes.] Are you aware that the fishings in the rivers have deteriorated?

Yes.

3526. To what do you attribute that deterioration?

In the first place, with regard to the Don, it is almost impossible that fish can get up that river just now, because the lower proprietors on the Don are fishing with stake nets so close to the mouth of that river. I inspected the Don the other day, and I found at its mouth that there is a bag net almost in the very centre of the course of the river where it runs into the sea. The beach is sandy, so that by floods the river shifts its bed at its point of confluence with the sea occasionally. There are two bag nets, one upon each side, but as the river varies, sometimes I have seen one of them almost directly in the centre of the river. Then there are four stake nets within, I should think, half a mile to the north of the mouth of the Don. Between the Dee and the Don which is a distance of about 2½ or three miles, there are six stake nets, and, eight or nine bag nets; so that upon each side of the Dee and the Don, close to the mouths of those rivers, the ground is studded with bag nets and stake nets, rendering it impossible that any fish can ascend them, altogether apart from other circumstances, such as the increase of drainage in these rivers, the liability of the rivers to much greater floods, and to impurities of various kinds being brought into them. In the Don, besides what I have

have stated with regard to bag and stake nets at its mouth, the other day, when I went over it with Lord James Hay's keeper, I counted no less than nine feath nets, which are stationary nets in the river; and there are two cruive dykes in the Don, and seven dykes used for manufacturing purposes, which, in summer, convey the whole of the water into the various aqueducts to drive mills. I have seen the river myself frequently, in summer, perfectly dry below those dykes, until the water rejoined the bed of the stream.

3527. Lord *Stanley* of Alderley.] Are not stake and bag nets, and other fixed engines, illegal within the rivers in Scotland?

Certainly, the stake and bag nets are illegal within the rivers.

3528. Would it not be possible to obtain an order of the Court of Session for the purpose of removing those fixed engines within the rivers?

I believe as to those feath nets, they have been unable to get them removed.

3529. Why?

I do not know.

3530. It is your opinion, as the law at present exists, that it is illegal to establish fixed engines within the rivers and estuaries in Scotland?

Yes, and it is generally unlawful to fish by any other means than net and coble, where the sea ebbs and flows.

3531. Such being the law, do you think that a summary mode of proceeding, by which the law could be enforced in an easier mode than by the present difficult and circuitous mode of applying to the Court of Session, would be beneficial?

I think the more simple the mode of putting an end to fixed engines in rivers, the better.

3532. Lord *Colville* of Culross.] You do not include cruives?

No; cruives are clearly lawful in fresh water, where proprietors have received right to use them.

3533. Earl *Ducie*.] Is there any legal definition of what the estuary of a river is?

Not further than that the estuary is considered that portion of the river where the tide rises and falls. That cannot, however, always be held to be a definition. In the Don the tide rises about two miles, but no one would call that the estuary of the Don. It is difficult to define what an estuary is.

3534. Lord *Stanley* of Alderley.] What is the space between the Dee and the Don?

About two miles and a half.

3535. Do you think that should be considered as appertaining to the rivers, or to the open sea?

It belongs to the river proprietors at this present moment.

3536. Do you think in that locality it would be illegal to have a fixed net?

No; it must be considered the open sea; it forms no part of the rivers, nor is it an estuary. The bay of Aberdeen is very large; the Dee and the Don flow into it. Fixed nets are not illegal in this bay, and are not objectionable, except near the mouths of the rivers. It is quite absurd the way in which people talk about bag and stake nets being a source of great injury to the fishings; still, it is very reasonable that stake and bag nets should be removed immediately from the mouths of rivers, so as to give the fish a fair chance of going up into the rivers, if it is really the case that the fish spawn in the rivers, and nowhere else.

3537. Do you entertain a doubt upon that subject; do you think that the salmon spawn in the sea, as well as in the rivers?

I do entertain a doubt upon it; though I must say my views are not confirmed. I think it exceedingly difficult to suppose that the vast quantity of salmon to be found upon the coast can go up into the rivers for spawning, or that they could be contained there.

3538. That is only conjecture on your part; you have no reasonable evidence upon which to found that opinion?

No.

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3539. Lord *Polwarth*.] Is not the opinion that salmon spawn in the sea rather increasing at Aberdeen?

Yes.

3540. Earl *Ducie*.] Are you aware that formerly there were salmon in the Thames?

I have heard so.

3541. To what do you attribute the entire destruction of salmon in the Thames?

I have always heard the reason given that it was from the shocking state in which the river is.

3542. If the salmon haunted the estuary of the Thames, some of which were going up the river for the purpose of spawning, although they have been destroyed, why should not there now be salmon coming up the Thames, if they breed in the sea?

I do not know whether there are salmon at the mouth of the Thames or not; but in sailing up the Thames, I have seen the sea very much discoloured to a great distance on both sides of the river, and even if they breed in the sea, I do not see how they could exist in the river in its present state.

3543. Earl *Innes*.] Have you ever heard of salmon being caught in the deep sea by a herring net?

No; I have heard fishermen in the fishing villages near Aberdeen say that they have seen salmon leaping in the sea as far as 20 or 40 miles out to sea.

3544. *Chairman*.] At all events the disappearance of salmon in the Thames cannot be attributed to the use of stake and bag nets?

Certainly not.

3545. Lord *Colville* of Culross.] Are you aware that the impregnated ova of salmon upon being put into salt water are destroyed immediately?

I am not aware that such has been ascertained.

3546. The number of nets between Aberdeen and Stonehaven seem to be annually increasing; would not that account for the great increase of fish taken on the coast, rather than the supposition that the fish were increasing in number?

No, they cannot be indefinitely multiplied. The tenants leave considerable spaces between their nets, and place nets at the extreme boundary of their fishing grounds, in order to allow as much space as possible for the fish coming along the coast to be gradually turned towards the shore, so as to be caught in these nets. It would be of no importance to multiply the nets intermediately.

3547. It is not the fact that within the last few years the nets have increased in number on that part of the coast?

I dare say they have increased slightly.

3548. *Chairman*.] Do you believe that the whole or the greater part of the salmon taken in the sea-coast fishings are on their way to the rivers to spawn?

I do not think they all are; because we find they go up the rivers often when they do not go to spawn.

3549. Do you think the whole of the fish are on their way to the rivers for some purpose?

I think not.

3550. Lord *Stanley* of Alderley.] Do you think it is the nature of salmon to be always seeking the rivers at the time of spawning?

If it is really the case that they only spawn in the rivers, it must be so. Of one thing there can be no doubt whatever, namely, that the salmon caught in the sea are invariably of by far the best quality. Long before this matter was talked of, I used to be quite certain, and I know many others of the same view, that even if salmon were caught within a short distance of the mouth of the river, it is quite possible to tell the difference in flavour. I would not say that there is any difference in their condition, after being short a time in fresh water,

water, but there is not the same full, rich flavour about them as when they are caught in the sea.

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3551. *Chairman.*] You think that the supply of salmon derived from sea fishings is greater than the supply derived from river fishings?

Certainly; I should say that the aggregate number of fish now caught is greater than before the introduction of stake and bag nets, and the supply is much more regular than before.

3552. So that, in your opinion, the public have an interest in the maintenance of the stake and bag nets?

Most unquestionably. I think the only question is, whether salmon are to be caught in the rivers or in the sea; it is entirely a matter that affects the pockets of the sea or river proprietors. If you are to consider whether you will abolish the fishings in the sea, or in the rivers, I should say it is best to catch them where they are found of the best quality, where they are never caught foul, and where there is no possibility of interfering with their spawning beds.

3553. *Lord Colville of Culross.*] Do you repudiate altogether the notion that you are indebted to any extent to the upper heritors for your stock fish in the sea?

I think we are very much indebted to them, and that is the reason why I say that great injury is apt to be done to the fish in the rivers; if they spawn only in the rivers, greater injury may be done to them by poaching and fishing there than could be done to them in the sea, which seems to be their natural element, and where they are found in the finest condition.

3554. *Earl Cawdor.*] The great majority of fish caught in the rivers, are caught in the lower parts of the rivers, are they not?

Yes.

3555. Do any salmon breed in the lower part of the rivers?

I believe so.

3556. Do not the greater part of the spawning fish go to the upper parts of the rivers for that purpose?

I believe the spawning beds are found all along the rivers. I am agent for a pretty large proprietor upon the upper part of the River Don, whose fishings are much destroyed by cruives, dam dykes, and stationary nets in the lower parts of the river. I consider the interests of the sea proprietors and the upper river proprietors almost identical, because they are both concerned in keeping up the supply of breeding fish. The proprietors of the lower fishings on the Dee and Don are the enemies of both.

3557. *Lord Colville of Culross.*] Do you know the spawning beds in the Dee and Don; are they low down or high up the river?

They are found all along the river, probably, for the most part, high up.

3558. *Lord Stanley of Alderley.*] If you were satisfied that the salmon will only breed in the river, and that by the existence of stake and bag nets they were intercepted in their way up the river, so as to diminish the supply, would you not be of opinion that it might be dangerous to the permanent breed of salmon to continue the existence of stake and bag nets?

I would consider it as dangerous to the breed of salmon to allow stake and bag nets to be placed at the mouths of rivers, or even within a short distance upon each side, because I think, though it is perfectly right and proper to catch salmon in the sea, where they are not prevented from getting up the river, it is exceedingly injurious to the breeding salmon, if the proprietors of lower river fishings put stationary engines in such a position that fish cannot possibly get up the rivers, as they cannot ascend the Dee or the Don at present.

3559. If the salmon were taken, it would be, in fact, killing the goose for its golden eggs, and prevent their breeding a sufficient supply of salmon for future years?

Certainly; the mode of fishing at the mouth of the Dee and Don is very prejudicial.

3560. If it can be shown that stake and bag nets a small distance from the mouths of rivers have the same effect in intercepting the progress of salmon

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from the sea to the rivers, would you not be of opinion that that might be injurious to the propagation of the fish, and might be the cause of the diminution that has been complained of?

I am distinctly of opinion that stake and bag nets which do not interfere with the mouths of rivers, cannot be injurious to the breeding of salmon, and are quite unobjectionable.

3561. If the fact should be, which you are uncertain about, that all salmon that are caught in the stake and bag nets are salmon in their progress from the sea to the river, would not they be intercepted from going up the river, whether they are caught close to the river, or even at a greater distance from the river?

If they were caught in bag nets when they were going to the river, of course they would be intercepted.

3562. Do you believe that any salmon caught upon the coast are salmon regularly living in the sea, or only salmon coasting along the shore for the purpose of entering the mouths of the rivers?

I think they are living in the sea. I do not think they are on their way to the rivers; they are caught at seasons when they are known not to be on their way to the rivers.

3563. Earl *Cawdor*.] Supposing the bag and stake nets were taken off; looking at the manner in which the rivers are fished with sweep nets and cruives, do you think that many more early salmon would get up the rivers?

The upper heritors would certainly not get them. If every bag net and stake net were off the coast for 10 miles on either side of Aberdeen, I do not think the upper heritors would get them, especially in the Don.

3564. It is therefore merely a question whether they will be caught by the bag and stake net proprietors, or by the lower heritors in the river?

Most certainly.

3565. The persons upon whose property they were bred, would not benefit at all by the change?

Certainly not; I think that is most clear from the state of the rivers; at present they cannot get fish in any numbers, chiefly through the obstructions of the lower river proprietors.

3566. *Chairman*.] Do you believe, in spite of the existence of the stake and bag nets upon the sea coast, that a sufficient number of breeding fish might ascend the rivers, provided the rivers were properly protected?

If the rivers were properly protected, and there were nothing put immediately at the mouths of the rivers to prevent their getting up.

3567. What limits would you fix from the mouths of the rivers within which stake and bag net should not be permitted?

I should say about half a mile, so as to leave the rivers perfectly open for the fish to go in. A long pier leads out from the mouth of the Dee, behind which there is a large bay; when the fish are coming along, they strike the pier, where there are stake and bag nets placed by the lower river proprietors. The fish coming from the north can scarcely thus reach the river, and bag nets are placed on the other side much in the same destructive manner. It is almost impossible for fish coasting along to enter the Dee, on account of these fixed nets close to its mouth.

3568. Does a large proportion of the salmon that are coming round the coast keep in deep water, or what is called hug the shore?

A great many of them are caught very close to the shore.

3569. Lord *Stanley* of Alderley.] If they are not all caught close to the shore, are any caught a distance from the shore?

Bag nets do not extend a distance from the shore; those fishermen I have referred to have frequently seen salmon leaping in the sea a considerable distance beyond where it was possible to put a bag net, on account of the strength of the tide.

3570. Lord *Colville* of Culross.] Do not you consider that there are migratory fish swimming from the north?

I am

I am not inclined to think so; the sea seems the proper element of the salmon, and it is natural to suppose that they should be swimming about there, much in the same style as other fish, except that they go up the rivers for particular purposes.

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3571. And other fish do not go up the rivers?
No.

3572. Lord *Polwarth*.] Is it not pretty well ascertained from the movements of other fish that they are migratory?
Haddocks are caught along the coast at all seasons.

3573. Do herrings play about in the sea entirely for their amusement, or are they guided by an instinct?
I think herrings are much more migratory.

3574. More migratory than salmon?
Yes; there is a very strange fluctuation in the take of haddocks. For some years back the white fishing near Aberdeen has not been successful, but during the present season more haddocks have been caught than for very many years.

3575. Lord *Stanley* of Alderley.] Do you attribute that to any particular reason?

No particular reason; I think it depends a good deal upon the state of the weather, whether it drives the fish towards the coast or not.

3576. *Chairman*.] Very few foul or spent fish are taken in the stake and bag nets, I believe?
Almost never; it is quite the exception.

3577. Lord *Colville* of Culross.] Are many damaged fish found in the stake and bag nets?
I never heard of any; it is quite possible if, after they are caught, a storm arises, that they may be injured.

3578. *Chairman*. Have you any observations to make or suggestions to offer on the subject of the close time. Do you think the present time a proper time for commencing and a proper time for closing?

I think the present time of commencing is very good. It might be desirable that the close time should begin a little earlier than at present.

3579. When should it begin, in your opinion?
About the 1st of September.

3580. Lord *Polwarth*.] If the salmon breed in the sea, do you attach much importance to the close time in rivers?

If they breed in the sea it would be desirable not to catch them there or in the rivers, when full of roe.

3581. What time do you catch them large with roe in the sea?
They are generally caught just before the close season begins.

3582. About the time that the close season in the river begins, you catch salmon large with roe now and then in the sea?
Yes.

3583. Do you therefore conclude that sometimes they breed in the sea as well as in the rivers?

I have no doubt they breed in the sea. An idea to this effect is gaining ground, but I am not in a position to say anything positively on the subject.

3584. Lord *Stanley* of Alderley.] Do you think that the increasing opinion as to salmon breeding in the sea, may be at all attributed to the complaints of the river fishers that their fisheries are spoilt by the fishings in the sea?

I should say not.

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3585. Lord *Polwarth*.] You are speaking of from what you have heard amongst the fishermen, and not giving an opinion that you have formed yourself?

I cannot speak with certainty as to salmon breeding in the sea.

3586. Have you ever heard any naturalist express an opinion that salmon breed in the sea?

No.

3587. Have you studied the natural history of the salmon yourself?
Not accurately,

3588. Then you give merely a vague opinion?

I do not wish to give a decided opinion upon the subject.

3589. *Chairman*.] Was the quantity of fish taken in the six years ending in 1859 greater than the quantity taken in the six preceding years?

It was, in the fishings with which I am connected.

3590. Have you any table showing that?

I have.

3591. Will you hand that table in?

(The Witness delivers in the following Table:)

NUMBER of SALMON and GRILSE taken in *Muchalls* and *Easter Muchalls* Fishings.

Y E A R.	Number.	Average Weight of Salmon.	Average Weight of Grilse.
		<i>Lbs.</i>	<i>Lbs.</i>
1848 - - -	1,635	11 $\frac{1}{2}$	4 $\frac{1}{2}$
1849 - - -	1,816	10 $\frac{3}{4}$	4 $\frac{1}{2}$
1850 - - -	957	10 $\frac{1}{2}$	3 $\frac{3}{4}$
1851 - - -	1,175	12 $\frac{1}{2}$	4 $\frac{3}{4}$
1852 - - -	1,429	10 $\frac{1}{2}$	4
1853 - - -	1,526	12 $\frac{1}{2}$	4 $\frac{1}{2}$
1854 - - -	1,563	9 $\frac{1}{2}$	4 $\frac{1}{2}$
1855 - - -	1,500	12	4 $\frac{1}{2}$
1856 - - -	1,300	12 $\frac{3}{4}$	4 $\frac{1}{2}$
1857 - - -	1,980	12 $\frac{1}{2}$	3 $\frac{3}{4}$
1858 - - -	2,010	10 $\frac{1}{2}$	3 $\frac{1}{2}$
1859 - - -	1,950	11 $\frac{1}{2}$	4 $\frac{1}{2}$

3592. That table shows considerable fluctuations in the take of salmon from year to year; can you account in any way for those fluctuations?

The only way I account for it is that the number of salmon taken depends much upon the state of the weather, and the prevailing direction of the winds. That seems to be almost the only cause of the fluctuation. I omitted to mention, in speaking of the close time, that, so far as the sea fishing is concerned, it does not matter very much what time it begins, because fishermen cannot put in their nets till about the 1st of March.

3593. Lord *Polwarth*.] Are you aware whether the salmon approach the mouths of the rivers in wet weather, or whether they are affected by wet weather?

I have never heard that that has any influence upon them.

3594. When there is more fresh water in the rivers, you do not think that they approach the rivers more on that account?

No.

3595. *Chairman*.] Would it be possible to observe the weekly close time, commonly called the Sunday slap, in bag and stake nets?

There would be no difficulty, practically, in closing a bag net in a few minutes, if the weather permitted, because the pole that keeps the bag of the net open can be slipped, and put in a horizontal position, so as to shut the net at once. Disputes would be sure to arise whether the weather was such as to allow this to be done.

3596. Earl

3596. Earl *Innes*.] Are not you aware that the weekly close time is observed on the west coast of Ireland in stake and bag nets?

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I am not aware of that.

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3597. Do not you think that the west coast of Ireland is as much exposed as the coast near the Don and the Dee?

I should suppose so.

3598. Lord *Lovat*.] Could not the poll in the bag net be slipped out by a line from the shore?

I should not think it could be done easily, because it is a very heavy pole; but some contrivance might be discovered; I should think it would be very difficult to manage.

3599. *Chairman*.] Do you think that the size of the mesh of the nets used in the lower parts of the river should be defined by law?

I think they are very much too small. I minutely examined the meshes of some nets the other day belonging to a lower heritor on the Don, and the mesh was an inch and a half in size at that part of the net where the fish would be pulled in. When the net is being pulled in, those meshes, instead of being extended, are drawn close together, so that even parr are dragged in.

3600. What, in your opinion, should be the legal size of the mesh?

I could not pretend to fix any size; I think they require to be a good deal larger than they are.

3601. They are so small now that they would take the smoults or fry of salmon?

That frequently happens; they pull in trouts and smoults.

3602. Lord *Colville* of Culross.] Do you think the deleterious matters from the mills on the Don do much harm to the fishings?

I think they are very injurious.

3603. Would not the law extend to that now if it were enforced?

I am not aware that that case has ever been tried.

3604. Lord *Lovat*.] Are there as many manufactories in operation on the Don as there used to be?

Not quite; but there are still very extensive manufactories. Several which have hitherto been closed are being re-opened; one large one in particular.

3605. It has been shut up for some years?

Yes.

3606. Lord *Colville* of Culross.] Would not the Act that was passed two or three years ago, with respect to the removal of nuisances in Scotland, apply to those cases?

I do not think that it would extend to those cases; I do not think, though injurious to the health of salmon, that there is anything put into the water that could be counted a positive nuisance.

3607. Are you aware of fish being destroyed by them?

No.

3608. *Chairman*.] Can you suggest any summary and inexpensive mode by which the provisions of any fishery Act might be enforced without having recourse to the superior courts?

A Board might be established with summary powers, but I think that an application to the Court of Session would be as expeditious a mode as any other.

3609. Lord *Colville* of Culross.] Do you think it would be a good thing to establish a central Board in Scotland in whom the supervision of fisheries would be?

I think it would.

3610. Do you think the present Fishery Board would suffice for that purpose?

That might easily be arranged.

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3611. You

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3611. You think there is sufficient machinery in the fishery Board in Scotland, and it might be extended?

I think so.

3612. Lord *Pohcartk.*] Have you had any experience of the working of the Fishery Board in Scotland?

No.

3613. Then you are not acquainted with the operations of that Board?

No; but I should think it probable that the Fishery Board could undertake the duties without the establishment of another Board.

3614. *Chairman.*] Can you produce any charter under which any of the fishings with which you are connected are held?

No; I have got one charter relating to the fishings of the town of Banff.

3615. What is the date of that charter?

The 9th of May 1581; the charter is in Latin, and it gives the most unlimited power of catching salmon in the sea as well as in the river.

3616. It does not prescribe any particular mode in which the fishing is to be carried on?

No; there is no sort of qualification whatever. It is conceived in the fullest terms.

3617. Do the corporation of Banff exercise the power of fishing by means of stake and bag nets under that charter?

Yes.

3618. Has that right ever been questioned?

Not that I am aware of.

3619. Lord *Stanley* of Alderley.] If there is no restriction in the charter upon the burgesses of Banff to erect any engine for catching salmon, would it be legal on their part to erect stake and bag nets in the river where you have already said, according to the law of Scotland, they would be illegal?

Not in the river.

3620. Under that charter power is given to catch salmon within the river not by any specified mode?

Yes; but subject to the interpretation of the courts of law. The right must be exercised in conformity with law.

3621. *Chairman.*] They have claimed the right of fishing in the river, by sweep and other floating nets, but they never assumed the right to fish by means of fixed engines?

I believe not.

3622. Lord *Lovat.*] Is there not a Scottish Act since the date of that charter which prohibits all fixed engines where the tide ebbs and flows?

The Act 9 Geo. 4, c. 39, regulates the close time, and it was found that it is in general unlawful to fish by any other means than net and coble where the sea and ebbs and flows. Duke of Athol, 16 December 1826; Mackenzie, 25 May 1830.

3623. Lord *Stanley* of Alderley.] Upon what decision of the court is it that you rely for your right to employ stake and bag nets in the sea, and as laying down the distinction between the sea and the river?

It was so settled by the case, Kintore, 11 July 1828. It was also so decided in a case raised by proprietors of river fishings in the Don against the owner of a neighbouring sea-coast fishing.

3624. You think the law is quite clear upon that point, and that the use of stake and bag nets is perfectly legal in the sea; that, in point of fact, there is no restriction upon any mode of fishing in the sea?

Stake and bag nets in the sea are perfectly legal.

3625. Under a grant from the Crown, by a charter or a lease, the persons deriving such power from the Crown, may catch salmon by any mode that they please?

Most

Most certainly ; it has been found that the Crown has the right to all salmon fishings not held by Crown charter, and can confer the right of fishing by lease or charter.

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3626. The Crown has the right, except it has parted with that right to individuals?

Yes.

3627. *Chairman.*] Have you any further observations to make to the Committee?

I desire to mention the fact, that in the neighbourhood of Aberdeen, the rental of salmon fishings in the sea has greatly increased of late, and is constantly increasing, which shows conclusively that the supply cannot be diminishing, whilst the mode of fishing undergoes little change. I know one fishing belonging to the town of Aberdeen which rose three years ago from 590 *l.* to 800 *l.*, the present rent; another, belonging to a different proprietor, which rose at the same time from 130 *l.* to 210 *l.*, which it now is. A fishing near Findon rose a few years ago from, I think, 60 *l.* or 70 *l.* to the present rental of 250 *l.* This tends to show that salmon fisheries are not in so unprosperous a state as they are represented to be. I look on the opinion that stake and bag nets frighten fish out to sea when they are not caught, as most absurd. Salmon cannot possibly be frightened by nets which are perfectly stationary, and if they were, they would only dart under them, or to a little distance. They are not frightened by net and coble in rivers, although with much greater cause. I shall produce a table of the produce of fishings at Burghead, near Elgin, during the past seven years, which also shows that an increase has taken place.

Total Salmon and Grilse caught.	Salmon averaged.	Grilse averaged.	Price realised, Salmon and Grilse overhead.
			<i>d.</i>
In 1853, 10 tons - - - -	11 $\frac{1}{4}$ lbs. -	4 $\frac{3}{4}$ lbs. -	7 $\frac{1}{2}$ per lb.
„ 1854, 18 „ - - - -	10 $\frac{1}{11}$ „ -	5 $\frac{1}{5}$ „ -	8 $\frac{1}{2}$ „
„ 1855, 9 „ - - - -	10 „ -	5 $\frac{1}{6}$ „ -	9 $\frac{3}{4}$ „
„ 1856, 13 „ - - - -	11 $\frac{1}{4}$ „ -	4 $\frac{1}{2}$ „ -	11 $\frac{1}{4}$ „
„ 1857, 16 „ - - - -	11 $\frac{1}{4}$ „ -	4 $\frac{1}{4}$ „ -	9 $\frac{1}{2}$ „
„ 1858, 17 „ - - - -	10 $\frac{1}{5}$ „ -	4 $\frac{1}{5}$ „ -	8 $\frac{3}{4}$ „
„ 1859, 15 $\frac{1}{2}$ „ - - - -	9 $\frac{3}{4}$ „ -	4 $\frac{1}{6}$ „ -	10 „

3628. Lord *Polwarth.*] To what do you attribute this large increase of rent?

I believe, from the statistics which I have, that there is a greater number of fish caught than used to be caught, and that they have risen in price, and that the value of the fishings has been better ascertained.

3629. Earl *Innes.*] Do you think that since the introduction of fixed engines on the coast a greater quantity of fish have been caught than were previously caught?

Since the introduction of fixed engines between Aberdeen and Stonehaven, I believe that the take of the fish has been gradually increasing, and has not fallen off.

3630. Lord *Colville* of Culross.] At the same time are not there general complaints from the river proprietors that the fish are diminishing in the rivers?

Yes, in the rivers.

3631. Lord *Stanley* of Alderley.] So that, in fact, what the river fishers lose, the sea fishers gain?

Most unquestionably, and the public have the advantage of a larger and steadier supply of fish of much finer quality. More salmon are now caught in (135.10.)

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the sea, and fewer in the rivers than formerly, but the country is better supplied, though the greatly increased demand has raised the price. Railways now convey quantities of salmon to the large inland towns, which could not otherwise have been supplied, and the demand in London seems unlimited. I would generally remark that, while every facility ought to be given to salmon ascending rivers when instinct impels them to do so, it would not be for the public advantage to interfere with their capture in the sea, which is their proper element, by the only means by which the fishing can be carried on.

The Witness is directed to withdraw.

Ordered, That this Committee be adjourned to To-morrow,
at One o'clock.

Die Veneris, 22° Junii 1860.

LORDS PRESENT:

LORD STEWARD.
Earl CAWDOR.
Earl DUCIE.
Earl INNES.
Viscount HUTCHINSON.

Viscount EVERSLEY.
Lord COLVILLE of Culross.
Lord POLWARTH.
Lord LOVAT.
Lord STANLEY of Alderley.

THE LORD STEWARD in the Chair.

Professor JOHN QUEKETT is called in, and examined.

Evidence on the
Salmon Fisheries
(Scotland).

Professor
John Quekett.

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3632. *Chairman.*] YOU are, I believe, officially connected with the College of Surgeons?
Yes.

3633. You have paid considerable attention to the subject of salmon fishing, have you not?
Yes.

3634. And to the natural history of the salmon?
Yes, within the last few years.

3635. The Committee have received evidence upon some points with respect to which they desire more accurate information; therefore I propose to ask you a few questions with regard to the natural history of salmon. Do you believe it to be possible that salmon ever breed in the sea?
I have never known an instance of it.

3636. And you do not think that it is possible?
I do not think that it is possible.

3637. Are a grilse and a salmon fish belonging to the same species?
The grilse is a stage of the salmon. The parr, or young, first produced from the ovum in process of growth becomes a smolt, which, after a migration to the sea, returns as a grilse.

3638. *Earl Cawdor.*] Have you heard any doubt expressed upon the subject as to whether grilse and salmon were not the same fish?

There have been some doubts, but I think the experiments at Stormont-field have set those doubts at rest, and it is now pretty well understood that grilse is the young of salmon.

3639. *Chairman.*] We have been informed by some witnesses that they can trace, very clearly and easily, the progress of the salmon for three years; first in its state as a grilse; secondly, in its state as a salmon in the second year and the third year, but after the third year they never were clear what became of the fish; that they did not reappear upon the coast of Scotland. Do you believe that to be a fact?

I think they return for a number of years.

3640. *Earl Cawdor.*] In that case, how do you account for the absence of large fish, because the large fish, we are led to understand, grow very much scarcer?

They do not allow them to escape, they catch them so very quickly.

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3641. Earl *Ducie*.] Is it your belief that a salmon which has been bred in a river travels to any distance from it when he enters the sea ?

I think salmon travel along the coast, but they endeavour to return to the river where they were bred.

3642. *Chairman*.] They usually do so ?

Yes, as far as I can make out ; they travel some considerable distance into the deep water and into the sea for their food, which is, I believe, essentially the ova of the echinus or sea urchin ; that is what I have always traced in their stomachs ; and I know, from the locality in which those sea urchins are found, that the salmon must go into deep water some considerable distance from the shore to get them.

3643. At what depth does the echinus, upon the ova of which the salmon feed, live in the sea ?

They live in from six to 20 fathoms.

3644. Earl *Cawdor*.] It has been stated by some of the witnesses who have been examined by the Committee, that the salmon come from the north, and they suggested that they come from the Arctic regions, and that they go far out to sea in returning from the coast ?

There are abundance of salmon, I believe, in the Arctic regions, but I do not think that they go very far from the coast.

3645. Those that return to Scotland are not those that are seen in the Arctic regions, in your opinion ?

I think not.

3646. It has been said by one of the witnesses, that he can trace the progress of the salmon along the western coast ; that they appear at the most northern point upon the coast with which he is acquainted at one time, and then he can trace their progress along the coast subsequently ?

I never had any evidence of that.

3647. Earl *Ducie*.] Are the salmon in the Arctic regions identically the same species as the Scotch salmon ?

There are certain salmon in the Arctic regions that are very different from the Scotch salmon ; I have never seen but one specimen, and I should hardly like to speak upon that.

3648. Are there a great many species of salmon in the Arctic regions ?

Yes ; a great many.

3649. Lord *Colville* of Culross.] Do not the shoals of herrings come from the Arctic regions ?

They come very far north. I cannot say how far.

3650. *Chairman*.] Do you believe that salmon are often seen 30 or 40 miles out at sea from the coast ?

I think not more than 8 or 10 miles, if as much as that.

3651. Earl *Ducie*.] You think the distance to which the salmon go out to sea is regulated by the depth at which the echinus lives ?

Yes.

3652. *Chairman*.] Do you believe that there is a distinguishable difference between salmon bred in one river and those bred in other rivers ?

The fishermen say that they can distinguish them. I am not a sufficient judge. I know principally the salmon from the Tay.

3653. Is it a fact that a full grown salmon contains from 17,000 to 20,000 ova ?

I should say quite as many.

3654. Then if the salmon were properly protected, a comparatively small number of fish would be sufficient to keep up the breed of salmon in the rivers in Scotland ?

Yes ; I am very fond of fishing myself, and the great point that always struck me, was that the fishermen should be obliged to use nets with larger meshes, so that they should allow grilse to spawn once. At the present time they take grilse

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grilse of five or six pounds weight, and stop them from going to spawn. If those grilse were allowed to go up the rivers one season, they would spawn, and then they would be caught larger fish the next season.

3655. Lord Colville of Culross.] Do grilse spawn the first year?

Yes.

3656. *Chairman.*] Can you inform the Committee whether the present close time is well adapted to the circumstances of the Scotch rivers?

I think so.

3657. You do not think that the fishing is kept open too long?

I have known the Tay for the last five or six years, and I think that there were a great many more fish in the Tay last year than I ever saw before.

3658. Does not the close season commence sooner in the Tay, than in some of the other Scotch rivers?

I think it is on the 26th of August that it begins.

3659. Does not it close earlier than on some of the other Scotch rivers?

It closes on the 1st of February.

3660. Is that the time fixed in the Tay Fishery Act?

I believe it is; it was so last year.

3661. Earl *Ducie.*] Since the lengthening of the close time on the Tay, has the fishing improved to your knowledge?

Yes; perhaps I may mention that I have a series of specimens, and I believe the only specimens that can be seen in London, of the salmon from the egg, showing what the parr is at its different ages—the smolt condition, the grilse, and the salmon. They were all marked fish, and were bred at Stormontfield. They are well authenticated specimens, and I shall be happy to show them to your Lordships at any time.

3662. *Chairman.*] Have any experiments been made with a view to vivify the ova of salmon in salt water?

I am not aware that there have. I have a slight recollection of some experiments having been performed on the coast of Scotland a few years ago. I have a number of papers, however, on the subject to which I could refer.

3663. Earl *Innes.*] I understood you to say that you have never heard of a single authenticated instance of salmon spawning in the sea?

I never have.

3664. What length of time do you consider that the smolt remains in the sea before it returns a grilse to the fresh water?

From six weeks and upwards; I have known them as early as six weeks.

3665. Earl *Cawder.*] What weight were they at that time?

A smolt was weighed, and was not quite an ounce, and when it returned in little less than six weeks the grilse weighed five pounds and a half.

3666. You have no doubt of that being the same fish?

No.

3667. Earl *Ducie.*] It was a marked fish?

Yes, it was a marked fish; and then there is a very remarkable thing connected with salmon; I never yet saw ova in a smolt, or in a parr; but the testicle or the milt, so to speak, of the parr becomes sufficiently developed to impregnate the ova of a full grown grilse or salmon. I have specimens showing that.

3668. Does not the term “parr” comprehend the young of other species of fish besides salmon?

Yes; I am speaking of the fry of the salmon. There is the parr condition of other salmonidæ.

3669. And of sea trout and river trout?

Yes.

3670. Earl *Innes.*] Do you consider the bull trout proper destructive to the
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breed of salmon, and do you think that they prey upon the smolts and upon the ova of salmon?

Decidedly.

3671. Earl *Cawdor*.] Do you think the salmon does not?
Not so much; but I should hardly like to trust them.

3672. Earl *Ducie*.] How do you account for their taking the minnow unless they are predatory in their habits?

They must be so.

3673. Lord *Lovat*.] Is not a smolt a very good bait for salmon?
Yes; and so is a parr.

3674. Earl *Cawdor*.] Is there any suggestion which you wish to offer to the Committee, with regard to any alteration of the law?

The great point to attend to is to preserve the small grilse so that they should be allowed spawn once. The grilse of the second year, known as salmon, would then be much finer, and you would also have the advantage of the additional spawn.

The Witness is directed to withdraw.

Mr. CHARLES NEWBY is called in, and examined, as follows:

Mr. C. Newby.

3675. *Chairman*.] I BELIEVE you are a fish salesman at Billingsgate?
Yes.

3676. Have you had considerable experience with respect to salmon imported from Holland?

Yes.

3677. Lord *Colville* of Culross.] Do you know the coasts of Norway and Holland well?

No; only by chart. Of course I should know where to find them all; but I have not much acquaintance with the rivers.

3678. So far as you know, are the rivers in Holland productive of salmon?

The people who send salmon to me buy them at different market-places. I do not know what rivers they come out of. There may be, perhaps, 20 fish out of one river and 20 from another, but those rivers may be 20 miles apart; we only know they come from Holland.

3679. You do not know what towns they come from?

No; my son could give the name of every town and every man's name who sends them.

3680. You cannot?

I cannot; for I do not keep my own books.

3681. *Chairman*.] Do you happen to know the fishing regulations in the Dutch rivers?

No.

3682. Are you aware whether the use of stake and bag nets is permitted?

I have seen them use stake nets; but whether you have stake nets, or whether you have seine nets, is a matter of no consequence; practically it is the same thing. The one is stuck up, and when the water falls away it leaves the fish behind, and the other is dragged by men or horses. I have been out to the North Sea fishery, and I know very well how to fish for any fish that I want to catch; but I have not made myself acquainted with the mode of fishing in Holland.

3683. Do you know whether salmon are caught in the sea?

No; I never caught a salmon in my life.

3684. From your experience, do you believe that salmon ever breed in the sea?

I think they do, the same as the smelts do. I think there are what may be called

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called salt-water salmon and fresh-water salmon. I think it is the same with salmon as with smelts; there are certain smelts that breed in the rivers, and there are others that breed in the sea. Those that breed in the sea do not care to go into the rivers, but those that breed in the rivers always will go to the sea.

3685. Lord *Colville* of Culross.] Do the Dutch salmon come over to you all through the winter?

Except when the rivers are frozen up by hard frosts.

3686. What sort of fish are they?

Splendid.

3687. Have they roe in them?

Not much. I do not hold that fish are in high condition when they have got large roe.

3688. Have not all fish when they are taken in nets near rivers roe in them?

When they have a little roe then they are in high perfection; but when they have a large roe they are getting out of season.

3689. Did you ever see a salmon without roe in it?

I think I have, without any roe at all, but the fishmonger who opens the fish could give you better information upon that subject than I can. We only pass them through our hands, and they are sold to the fishmongers. I do not see many of the fish opened.

3690. *Chairman.*] Does Dutch salmon command as high a price in the market as Scotch salmon?

Higher. I have no objection to compare my books with those of any man who sells Irish or Scotch salmon in Billingsgate. I will put my Dutch fish against any fish that come to London, and they shall fetch the most money.

3691. Lord *Colville* of Culross.] Can Dutch fish compete with Scotch fish in the London market now?

I do not know what is meant by competing; the people who buy the fish in Holland send them to me now; but when a very large quantity comes to market, it knocks down the price so low in London, that the Dutch will not send me fish from Holland.

3692. Is not the quantity of Dutch fish sent to the London market very small in comparison with the Scotch and English fish?

Very small; it is merely a drop in a bucket.

3693. Do you know whether any close time is observed in the fishings on the Dutch coast?

As I said before, I do not know. If I had time, I could get you information about the close time and the size of the nets; but I think we destroy the things that Providence sends us in this country, not only salmon, but all other fish, by catching them too small and out of season. The fishermen use close nets; I have been a fisherman, and I have used such nets as ought to have been burnt.

3694. *Chairman.*] Are salmon consigned to you from Scotland?

No. I never sold any Scotch salmon.

3695. Earl *Cawdor.*] Do any salmon come to the London market from any other countries besides Holland?

Not to me. A little comes from Norway, but that comes in such a bad state, that nobody cares to look after it, or to sell it.

3696. Lord *Colville* of Culross.] Do you know anybody in London who could give reliable information with respect to the Dutch fishings?

I do not know anybody in London; I could get proper information myself; I sometimes throw out hints about nets that some people think worth picking up. I should think it would be a good plan if you got a competent man to make inquiries and get the dimensions of the mesh, and so on, because the net is one of the principal things that are destroying the fish before they come to maturity; not but what there are thousands and tens of thousands of fish come to London out of season altogether.

(135. 11.)

X x

3697. *Chairman.*

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3697. *Chairman.*] Is the quantity of salmon that is sent to you from Holland, larger than it was formerly?

About the same; I do not see any difference.

3698. There is no falling off in the quantity?

There is no falling off in the quantity, nor yet in the size.

3699. Is there any falling off in the price?

No; salmon fetch a great deal of money that come from Holland.

3700. Does Dutch salmon fetch a higher price than it did some years ago?

I think it does; the people like it better. The Scotch people used to try and run it down, and say that it was not good fish, but people began to eat it, and they found it good fish.

3701. *Earl Cawdor.*] What quantity of salmon do you get from Holland?

I could not say, unless I had an account made out; I could give the numbers of fish, their average weight, and the price.

3702. *Chairman.*] Supposing the size of the fish to be equal, will a large Scotch salmon command a higher price than a Dutch salmon?

It would not fetch a farthing more, and it would not fetch quite so much in the fore part of the season.

3703. Your evidence upon that point does not agree with the evidence of another extensive fish salesman; do you know Mr. Ridpath?

I know him quite well; and if Mr. Ridpath was here, I should like to give that evidence before his face, because I think he is a prejudiced man. He may think the Scotch salmon are the best because his great business lies in Scotch salmon; that is all I have to say about it.

3704. Mr. Ridpath says that a large Scotch salmon is worth more than a large Dutch salmon, generally; you do not admit that fact?

I do not admit it; I know that a great many people say so who have not the experience that I have on this matter.

3705. You admit that there is an opinion prevalent to that effect?

Quite so; forty out of fifty people would say that a Scotch salmon was the best, I dare say, but then I deny it.

3706. *Lord Colville of Culross.*] How long do you suppose the salmon that you get from Holland have been out of the sea or the fresh water by the time that you get them in London?

Sometimes thirty hours.

3707. Do they all come by steamers?

Yes; I have had them come like life; I should say about 40 hours is the average.

3708. *Lord Lovat.*] Are the fish packed in ice?

Sometimes they are and sometimes not; they very often come without any ice.

3709. *Lord Colville of Culross.*] You have fished a great deal yourself in the North Sea, I believe?

Yes.

3710. Have you ever seen salmon jumping in the sea?

No; as I said before, I never caught a salmon in my life.

3711. And you never saw a salmon jumping in the sea?

I never saw a salmon jumping in the sea, but I believe they do.

3712. You have been very many years fishing in the North Sea in calm weather and rough weather, but you never saw salmon jumping in the sea?

I never did; I do not say that other people have not.

3713. *Chairman.*] Are many salmon sent to London from the Elbe and the other German rivers?

Very few.

3714. *Lord Colville of Culross.*] Do you think they chiefly come from the Rhine and the Scheldt?

Yes;

Yes; I am quite certain that you will not do any good as regards preserving the salmon fishing if you do not look after the nets. It is most important to look after the way that salmon are caught, and that the nets used are not too small in the mesh. I am persuaded, from experience, that there are fresh-water and salt-water smelts. The fresh-water smelts go into the rivers to spawn, and they like best for that purpose those parts that have most gravel at the bottom; and, as I said before, I believe, it is precisely the same with the salmon.

Mr. C. Newby.

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The Witness is directed to withdraw.

Professor THOMAS HENRY HUXLEY is called in, and examined.

3715. *Chairman.*] YOU are, I believe, Professor of Natural History at the Government School of Mines?

Professor
T. H. Huxley.

Yes.

3716. Have you paid considerable attention to the natural history of salmon?

Of course; it is my business to be acquainted with the leading facts in the natural history of salmon.

3717. The Committee are desirous of obtaining your opinion upon certain points, which have been stated in evidence before them; do you believe that salmon ever spawn in the sea?

I am not aware of any evidence to that effect.

3718. You do not believe it?

I do not believe it; there is no record of any such occurrence in any of the works on the subject with which I am acquainted.

3719. Have any experiments, to your knowledge, been made with a view to vivify the ova of salmon in salt water?

Not within my knowledge.

3720. Do you believe that a grilse is a salmon of the first year?

That is a very much contested point; your Lordships will be aware that a number of experiments have been made upon that question, partly by Mr. Shaw, partly by Dr. Davy, and partly by Mr. Young, and those different observers have come to very different conclusions. Mr. Shaw considered that he had discovered that the eggs which were hatched in the spring became small par, that those small par in the second year became large par, and that then towards the end of the season they became smoults; that the smoults then went from the rivers to the sea, and returned to the rivers in the autumn of the same year as grilse; that was his view of the matter, and he brought forward a great many conclusive experiments to show, at any rate in some cases, that that really was the result; and that the young salmon frequently does not become a grilse until the end of the second year. But, on the other hand, Mr. Young made a number of experiments upon the same point, and he showed, at any rate in some cases, that the young par become smoults at the end of the first year. There is clear evidence upon both those points, if the statements of those observers are correct, that in some cases the young salmon become salmon at the end of the first year, and in some cases at the end of the second year. As usually happens in these matters, each observer maintained that his own view and his own conclusion were correct. A great controversy arose, and lately experiments have been made, which seem to show a considerable amount of variation in those respects; and some observers have thought that the male salmon are those which remain two seasons in the rivers, while the females go directly to the sea in their first year. Upon that again, I believe, much doubt has been thrown of late years. At present, I think, all the best evidence tends to the conclusion that the young of the salmon are apt to vary to the extent of twelve months in the time which it takes them to attain the state of grilse.

3721. *Earl Ducie.*] The salmon is a variable animal in several of its habits; sometimes it comes with the fresh water early in the year, at other times very late?

I am aware of that.

(135. 11.)

x x 2

3722. Might

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3722. Might not that possibly account for the different periods during which the young remain in the rivers; for instance, the par, which was the offspring of the salmon coming up the river early, might go down earlier than others?

I do not think that that is the case, and for this very remarkable reason. I should mention to your Lordships the question has not been recently much in my mind, so that I speak from recollection, merely. In one of the experiments made by Mr. Young, I think the tank, or the pond in which the par had been bred, and which contained par of that year, was opened and allowed to communicate with the river. It was found that about a third, or perhaps two-thirds of those young par changed into smoults in that year, and went through the gate into the river, and that the rest all remained behind, and did not change into smoults until the next year; that is a most singular fact.

3723. Earl Cawdor.] Was it ascertained whether those which remained behind were male or female fish, or whether they were mixed?

It was not decided in that experiment. Subsequent experiments have shown that the second year's par are not all male; it was at one time supposed that one year's par are all male; that point has been settled in the opposite way, some appearing to be male and some to be female.

3724. Chairman.] Some of the salmon fishers who have given evidence before the Committee have said that they can trace the growth of the salmon for three years, but that at the end of three years they disappear altogether from our coasts, and are not seen again. Do you believe that to be the fact?

I believe their tracing the history of the salmon for three years may be a fact in this sense; in the first year they are small par, which do not attain the length of more than two or three inches, in the second year they are par that will shortly become smoults, and in the third year you have them returning back as salmon or grilse of various sizes, as the case may be; so that in that sense it may be quite true that their history may be traced for three years; I can understand that, but after this period their history can hardly be traceable; there is no evidence that they disappear.

3725. It has been stated that fish above a certain weight, say 17 lbs. or 18 lbs., are very rarely caught, and that large fish of 50 lbs. or 60 lbs. are quite exceptional. The several fishers to whose opinion I have referred think that the salmon may possibly go to the rivers in Holland and other rivers; do you believe that to be possible?

I think not; I think the fact of very rarely finding salmon above a certain size arises from the enormous destruction to which salmon are exposed; the chances are very much against salmon attaining a very large size.

3726. Earl Ducie.] Is it not possible also that fish of that size are exceptional?

I should think so; the moment a fish attains that size he becomes an object of mark to his enemies in the sea as well as to his enemies in the fresh water.

3727. Chairman.] Do you believe that salmon are frequently seen at a considerable distance out to sea, say 30 or 40 miles?

I have never seen evidence of that fact, and I am not aware that such a fact is stated in any of the scientific accounts of salmon.

3728. Lord Lovat.] Have you known fish that have been marked as smoults caught as large salmon?

I have heard of their being caught as full-sized salmon.

3729. More than three years old?

I believe more than three years old; I suppose that to be the case.

3730. Earl Innes.] With regard to the smoults, is it your belief that a par remains in the state of a par for the first season in fresh water, and does not go down to the sea; suppose a fish is spawned one year, do you think it remains till the following spring in the fresh water, and then goes down as a smolt to the sea?

I believe that that is the case generally; but, as I mentioned just now, there is definite evidence that in some cases a smolt is a fish of the same year.

3731. But a grilse, in your opinion, is a fish of 15 months old from the time of the ova being deposited?

Commonly

Commonly it is so ; but I think in some cases it may be a fish of not more than 12 months, or at least nine or ten months ; I think the evidence is positive on both those heads.

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3732. Earl *Ducie*.] When the salmon leave the fresh water and reach the sea, do you think they go to any distance from the shore ?

I do not think there is evidence to that effect ; there is none that I am aware of.

3733. Do you know what the habits of the salmon are in the sea ; upon what he lives ?

There is much reason to believe that those animals live chiefly upon entomostracous crustacea, which are found in the sea in very great abundance I believe that is one reason of the great increase of size which the salmon attain in the sea, because in the rivers the only food of this kind they can obtain consists of insects and insects' larvæ, which are comparatively few ; but directly they come to the sea there are great patches of water where crustacea are found in abundance.

3734. In fact they swim in a species of animal soup ?

Yes.

3735. Earl *Cawdor*.] Are those crustaceæ found in deep water ?

Yes ; it would be quite possible for the salmon to obtain such food there.

3736. Earl *Ducie*.] What depth are the crustaceæ in the water ?

They are at the surface in deep water ; very often you find the surface completely thick with them.

3737. One of the witnesses has stated it as his belief that the principal food of the salmon is the ova of the echinidæ ?

I doubt that very much ; I do not know how the salmon are to get them, to begin with. If you examine the surface of the sea, you find the embryos of echinoderms mixed up with other things, and there is a far greater multitude of minute crustacea and molluscs. The salmon can only open his mouth and take what comes into it ; he cannot separate them ; you do not get the ova or embryos of the echinidæ in distinct patches by themselves.

3738. Those ova are not deposited at the bottom of the sea ?

No ; the ova are very rapidly hatched, and as soon as they are laid they become fry, or swimming embryos.

3739. Are they ovoviviparous ?

Hardly that ; but still the eggs are hatched very rapidly.

3740. Do the salmon feed upon the embryo ?

I should imagine they must do so to a certain extent ; a salmon can only feed upon these small creatures by opening his mouth, and taking what comes into it. Those who have examined the stomachs of salmon fresh from the sea, affirm that they contain great multitudes of minute crustacea.

3741. There is nothing in the nature of the food of salmon to confine them to the immediate vicinity of the shore ?

I should say not, so far as I am aware.

3742. Earl *Cawdor*.] Do those crustaceæ deposit their ova at the bottom of the sea ?

It is those crustacea themselves, which are the prey of the salmon, and not the ova ; they are very minute animals, and very abundant ; and the most of them carry their eggs about with them.

3743. Are the ova of the echinidæ deposited upon the bottom of the sea ?

They may be so deposited for a short time. We have no positive evidence that salmon feed particularly upon them ; but we know that they feed upon these entomostraca or small crustacea.

3744. Lord *Lovat*.] Is a foul salmon long in getting clean after he gets into the sea ?

I am not aware ; I think it would be very difficult to ascertain that point in any way.

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3745. Earl *Cawdor*.] It has been stated that salmon come into the fresh water to clear themselves of sea lice; do you believe that to be the case?

No; I believe that they come into the fresh water for the purpose of spawning.

3746. *Chairman*.] Do you believe that salmon come into the fresh water for no other purpose than to breed?

I imagine for no other purpose.

3747. Earl *Innes*.] Do you believe that the roe comes more rapidly to maturity while the salmon is in the sea than in the fresh water?

It is not a matter upon which I possess the means of forming any judgment; it is merely the ultimate fact that the animal ascends the rivers; I cannot say why.

3748. *Chairman*.] Is it not the fact that some fish enter the rivers with a small quantity of roe, and that in a very immature state?

I believe there is no doubt of that.

3749. Consequently they remain in the fresh water for a very considerable time before spawning?

The best evidence that I have seen is to the effect that many young salmon, particularly grilse, entering the rivers early in the season, may remain for several months in the fresh water without depositing their ova.

3750. Earl *Cawdor*.] But they do deposit their ova that year?

Yes.

3751. *Chairman*.] If salmon are impelled by this instinctive desire to deposit their spawn in the rivers, how does that operate so much sooner in the case of some fish than in that of others?

I should be sorry to say that they are impelled by a wish to deposit their spawn. I cannot say why this instinct to return seizes them. I should doubt its being a mere instinct to deposit their spawn.

3752. I thought you said they returned to the rivers for the purpose of spawning?

That is the final result. What they primarily ascend for, I cannot say, nor whether they may not at first be impelled by other motives.

3753. Earl *Cawdor*.] Do you know whether any fish come up the rivers, and go down again without spawning?

I do not think so; and I do not think there is any evidence to that effect.

3754. Lord *Colville* of Culross.] Do you think the sea lice attached to salmon irritate the fish very much?

I should say very slightly.

3755. Do sea lice attach themselves to other fish?

There are great varieties of those sea lice; every fish has its own kinds, which attach themselves to that fish. They seldom cause the fish much inconvenience. Those who are acquainted with the habits of fish, must be very often astonished to find great numbers of parasites, both internally and externally, without the fish seeming to suffer the slightest inconvenience.

3756. You are aware that it is a common theory that salmon go into the fresh water to clear themselves of sea lice?

Yes.

3757. Earl *Ducie*.] Is not it a remarkable fact that salmon are in the highest condition when they have those parasites upon them?

I should say that they are then best capable of nourishing them; they really make very little difference to the fish. For instance, you can hardly ever open a shark or other predatory fish without finding in its intestines great numbers of entozoa like tapeworms, but the fish are, apparently, just in as good condition as if the parasites were absent.

3758. *Chairman*.] Is it the fact that a full grown breeding fish contains from 17,000 to 20,000 ova?

I should think even more than that.

3759. In

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3759. In your opinion, a small quantity of fish properly preserved would afford quite a sufficient supply to stock the rivers?

Yes; if properly preserved, the roe of one fish would stock a river.

3760. Earl *Ducie*.] You mean if the fish were preserved, and not the roe of the fish during the period of incubation?

I mean if the young were prevented from being destroyed when they entered the rivers.

3761. Is not the fact of the salmon having such an enormous quantity of eggs a proof that they are liable to great danger of being preyed upon by other animals?

Yes; there is no question that young fish play the same part in the sea as the grasses on land. The young serve as a kind of pasture to multitudes of carnivorous creatures.

3762. Earl *Cawdor*.] Do you know the bull trout?

I know it as a fish.

3763. Do you think that they are destructive in a greater degree than other salmonidæ?

I am not aware that they are shown to be more destructive. All grown carnivorous fish are destructive to small fish.

3764. You do not think that the bull trout is a worse character than its neighbours?

It has received a worse character, but I am not aware that it deserves it.

3765. Lord *Lovat*.] Are the insects which are found in the gills of foul salmon the same species as the sea lice. When a foul salmon goes down to the fresh water, his gills are full of insects of the same shape as the sea lice that you find under the skin when they come up?

I have not examined the lice of the salmon, but I should imagine that they are a distinct species.

3766. They are the same shape as sea lice, only they are white; and those that are under their skins are black?

There are many different sorts of fish lice, though they are very similar in shape. Those which inhabit the fresh water, and those which inhabit the sea, are of different kinds.

3767. *Chairman*.] Is it your belief that the salmon of which we hear in the arctic regions are bred there?

I should imagine that they are bred in the rivers of North America, which are very full of salmon.

3768. You do not believe that the salmon migrate to any considerable distance?

I do not think there is any positive evidence of their doing so; but I should think it would be very unsafe to give a decided opinion upon the point. There are fish which have the same habit as salmon, of breeding in rivers, and then going to the sea and coming back; and it is quite certain they sometimes cross considerable tracts of the sea—take, for instance, the sturgeon; it is not known in our rivers as a permanent resident; and is not commonly found going up them to a great distance. The sturgeon taken in our rivers, therefore, must have crossed the sea from some of the continental rivers; and as salmon may possibly do the like, I think it would be unsafe to give any positive opinion upon that point.

3769. Do you believe that salmon usually return to the rivers in which they are bred?

There is very positive evidence upon that point. I think Mr. Young, if I recollect rightly, made a number of experiments by notching the salmon, and he found, curiously enough, not only that they came back to the same rivers in which they were bred, but to the same branches of the same rivers: he knew the salmon by the notches and by the wires which he had affixed to them.

3770. *Chairman*.] Is there any distinguishable difference between the fish bred in one river, and the fish bred in another?

(135. 11.)

x x 4

I believe

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I believe there are very considerable differences; I know it has been the opinion of some of those who have given the most attention to the matter, that the fish that are bred in different branches of rivers are a distinct race, and are easily identifiable by those who are in the habit of looking into those matters.

3771. *Earl Ducie.*] But nothing approaching to a distinct species; nothing more than a variety?

Nothing more than a variety.

3772. *Chairman.*] To what do you attribute the diminution of salmon in the rivers in Scotland which is stated to have taken place?

I should hesitate in giving a decided opinion, because the whole of the facts have not been considered carefully by me; I think excessive fishing and poaching would be sufficient to account for a very considerable decrease, without going farther.

The Witness is directed to withdraw.

MR. ROBERT ALLEN is called in, and examined.

Mr. R. Allen.
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3773. *Chairman.*] I BELIEVE you are the lessee and manager of Lough Foyle salmon fishings?

Yes.

3774. Have you had considerable experience in salmon fishings?
For the last nine years I have been the lessee of those fishings.

3775. Were you conversant with the fisheries of Lough Foyle prior to the passing of the Act of 1842?

No, I was not.

3776. You cannot give us any comparative account of the state of those fishings before and after the passing of that Act?

I could speak, I think, with a good deal of certainty as to the amount of capture, and where it was from, and by what I heard, with reference to the previous accounts.

3777. Are you able to say that the effect of the Act has been to improve Lough Foyle fishings?

I think not.

3778. You think the law stands in need of some improvement?
I would think so.

3779. In what respect do you think the existing Irish Fishery Law needs improvement?

Previously to the coast fishing capturing so many of the fish, the proprietors of the rivers felt it their interest altogether to use every exertion for the protection of the fish; now they only reap a secondary advantage for doing it: they do not find it their interest in the same way. The coast fishers pay a very small sum, called a license duty, and contribute nothing in our district beyond that; the river proprietors spend large sums of money. If you will permit me to say what I do myself, I shall be happy to do so. With regard to the Foyle, the entrance to it being so much wider, we still continue in the Foyle, and the tributaries to the Foyle, to carry out the usual voluntary protection, to pay the people, in fact, irrespective of the amount that we pay for license duty. At the Bann, for the last five or six years, I have not paid anything except that which I pay for license duty; before there were 100 *l.* or 200 *l.* a year expended voluntarily upon it, for this simple reason, that there were, I think, the year before last, 100 nets placed between Fairhead and the mouth of the Bann; all the nets were capturing fish going towards the Rivers Foyle or Bann: we feel that close nets have the first chance of taking the fish.

3780. The stake and bag nets?

Only bag nets can be in the sea; stake nets are in the river; but the stake
nets

nets were not, as far as my knowledge of it goes, and cannot be erected in the sea.

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3781. Do you employ any fixed engines yourself?
Yes, a great many.

3782. Bag nets?
A few bag nets, but stake nets in the Foyle; but the Foyle is not, properly speaking, the sea; it is the river.

3783. *Earl Innes.*] Do you use stake nets in the estuary?
In the River Foyle.

3784. In the tideway?
Yes; below Culmore, and even above Culmore.

3785. *Viscount Hutchinson.*] Has the mouth of the Foyle River been defined by the Fishery Commissioners?
Yes.

3786. Where is it?
I believe they have defined it as Culmore, which is not the proper place. The Irish Society have the exclusive right of fishing to Green Castle and Magilligan Point.

3787. That is to say, they are the proprietors of the whole of the land?
Yes; the proprietors of the whole of the Foyle.

3788. *Chairman.*] Do you hold those fishings under the Irish Society?
Yes.

3789. On a lease?
Yes.

3790. Has the rent of late years increased or decreased; do you pay a higher or a lower rent than you did?

The rent was very much increased before; my immediate predecessor paid a greater rent than had been paid before, for the reason that it was an old lease. Sir George Hill, I think, was one of the parties who was lessee. At the expiration of that lease the amount was increased. I should say that the lease was not carried out, but still there was a very large amount of increase.

3791. Do you know anything of the Scotch salmon fisheries?

I do not; but I can with some degree of certainty give you an idea as to the falling off in the Bann for a number of years; upon evidence given as to what the latter had been, and what it has fallen off to.

3792. Do you attribute that falling off to the same cause that you attributed the falling off in the Foyle?

I would, to a great extent; the Foyle is not acted upon so severely by the bag nets as the Bann, owing to the entrance to the river being so much wider.

3793. Do you believe that to be the sole cause of the falling off, or are there other causes at work?

I believe that to be the sole cause, as far as my knowledge of it goes. I would say that the production of salmon is nearly as great as ever it was; but they are taken at different places.

3794. They are not able to ascend to the spawning beds?
They are not able to get into the river.

3795. Those stake nets are in the estuaries?
Yes; but they do not spawn in the sea at all; they go much higher.

3796. *Earl Innes.*] Do you mean to say that the fishing on the sea coast by means of fixed engines is too severe?

I do not want to say that; I mean to say that they do capture the fish to a great extent.

3797. *Earl Cawdor.*] If those fish escaped the fixed engines on the coast, they would be caught by the proprietors on the lower part of the river?

(135. 11.)

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They would; the only difference is, so far as that is concerned, that the people on the coast do not do anything towards the breeding of the salmon.

3798. Viscount *Hutchinson*.] Are there many stake nets in the Foyle above Culmore?

There are a great many; six nets.

3799. Are those your nets?

Yes.

3800. Do you find that you take a considerable number of fish in those stake nets above Culmore?

We do.

3801. I believe you are aware that before the passing of the Act of 1842, and if it were not for the Act of 1842, those stake nets would be illegal?

I believe they were illegal before that Act.

3802. Supposing that the old law were reverted to, and the stake nets in the estuary of a river were declared to be illegal, what effect do you think that would have upon the fishing, and also what effect upon your interests as lessees, and the interests of your landlord, the Irish Society?

I do not think it would have a great effect upon our interest or theirs, for we would take them in draft nets higher up the river.

3803. There would be no difficulty whatever fishing that part of the Foyle above Culmore with what the Scotch call the net and coble?

There would be no difficulty in fishing about Londonderry, and above Londonderry, and at Culmore; there are several places where draughting could be carried on.

3804. What is called in Scotland net and coble?

Yes. They have a net in a boat, and shoot it out and draw it in.

3805. I understand you to say your fishing extends from Greenbraes, near Lifford, down to Magilligan Point?

Yes.

3806. What description of engines do you use in that part of the fisheries?

We do not fish at Magilligan; we do not feel it to be our interest to do so; but we endeavour to keep others from fishing there.

3807. Where are those bag nets situated?

There are none of them within a mile or two below Culmore. Green Castle is some 14 or 15 miles further down.

3808. Do you find you can easily observe what they call the Sunday slap?

In the river there is no difficulty in keeping a weekly close time, but on the coast it does frequently occur when they say there is a difficulty in doing it.

3809. That is when the weather is very stormy?

That is when the weather is very stormy, when they say they cannot get to their nets; I have known an instance, when it was fine weather on the Sunday, of a man taking in his nets, and the churchwarden summoning him for a breach of the Sabbath day for doing it. I do not know whether that was untrue or not.

3810. *Chairman*.] The coast guard in Ireland and the constabulary interfere, do they not, in order to enforce the observance of that provision?

They do; but the coast guard and constabulary do not give themselves much trouble about the nets that are far away from them. I do not think the weekly close time is very much observed upon the coast.

3811. Viscount *Hutchinson*.] You think it is not much observed?

I fear it is not.

3812. Earl *Innes*.] At what time does your close season begin for nets?

Our season, by law, commences on the 1st of February, but we do not get fish in the Foyle until about the 17th of June; they fix the 17th of June, which is the

the fair day, as a good day, to begin; we do not get, until the middle of June, any fish in the Foyle worth capturing; but we put out our nets much earlier, perhaps from old custom, for a very good reason: the fishermen all say, if we do not place our nets in the month of April or the first tides in May, we do not have such good ebbs; the tide receding they cannot get them in well; the fishermen always say that, but they have a reason for doing it, because their pay commences when the nets are out, though they do not get fish; they have to be humoured a little, for there is a great body of them, but we do not get any fish in the Foyle until this month.

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3813. The Foyle is a very late river?

The Foyle is a very late river; then we are obliged to close early; it would be an advantage to the Foyle if we got fishing in September; if the time were altered, and they allowed us to begin the 1st of May, and fish till September, it would be an advantage to the Foyle. Other rivers have applied for commencing in January and closing as early as they like in summer; for instance, in July. At Rathmelton Sir James Stewart is the proprietor of the fishery, and gets fish in the month of January.

3814. Earl *Cawdor*.] Do you get fish in good condition in the month of September?

We would get fish in good condition in the month of September.

3815. Would not the great proportion going up the river then early be heavy with spawn?

Some of them would not be out of condition in the Foyle; in the Bann they would.

3816. Lord *Lovat*.] What time do the fish spawn in the River Foyle?

Not until much later than that; they do not spawn in the Foyle proper; it is in the Finn and the Mourne, which are tributaries of the Foyle.

3817. When do they spawn there?

I suppose they do not spawn before November; sometimes they go up the rivers late; they run into the rivers when the rivers are high enough to protect them.

3818. Earl *Innes*.] Am I to understand that you commence your fishing on the 1st of February, and continue it up to September?

I mentioned that we have liberty to commence on the 1st of February.

3819. But you do not commence then?

No, we do not commence till May in the Foyle.

3820. Viscount *Hutchinson*.] How far up the river does the right of the Irish Society extend?

To Lifford.

3821. You do not use any weirs?

Not in the Foyle; in the Bann we do.

3822. Above the fisheries of the Irish Society, higher up the Foyle river, what engines are used by the proprietors for taking fish?

Immediately adjoining us a man uses draught nets; there are some cruives in some of the small streams; up to Castlefinn there is a stream, and there are draught nets in some places; the Marquess of Abercorn's agent has a draught net.

3823. Have you any reason to believe that the Queen's share is allowed in those weirs?

Yes, I think it is.

3824. Do they observe the weekly close time?

They do pretty well; there are water keepers for the purpose of looking after it; sometimes there is occasional complaint about it brought before the magistrates, but that is very easily remedied; inland it is very easy to do it; on the coast it is not so easy.

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3825. *Chairman.*] Is there always a Queen's share, or opening in the mill-dams ?

There are no fish in the mill-dams that I am aware of.

3826. *Viscount Hutchinson.*] In mill-dams for milling purposes ?

The fish do not get into the mill-dams at all ; they go higher up the river.

3827. Are not they to a certain extent an obstruction to the fish seeking to go up the river ?

Not the dams ; the weirs are more destructive to the fry descending the river than to the fish going up.

3828. *Earl Cawdor.*] Are there any openings in the mill-dams that are used to conduct the water to the mills ?

When the water is taken from the river to be applied to mill purposes there are what we call weirs thrown across the river ; and in most cases there is a fish-pass to allow the fish to ascend the river ; we have before us now what has been proposed to be done. At a flax mill, above Strabane, four or five miles higher, there is a weir as to which some application has been made for an opening.

3829. *Chairman.*] Are those openings made at the expense of the millowner, or at the expense of the proprietors of the fisheries ?

If the weir has been erected since the passing of the Act of 1842, the owner of the weir is obliged to make the openings at his expense.

3830. But in ancient mills, who defrays the expense of making the openings ?

In ancient mills, where an opening does not exist, if the Board of Conservators insist upon its being now constructed, it would have to be done at the expense of the proprietors of the fisheries.

3831. *Viscount Hutchinson.*] I suppose you are a member of the Board of Conservators for the Foyle ?

I am a member of it.

3832. Do you think that the system of having a Board of Conservators for each district works well ?

I think it does.

3833. Can you state the amount of money that is raised in the Foyle from the license duties ; what was raised in the last year, and applied for the preservation of the river ?

I cannot tell you in figures the amount of money ; I may mention that it goes a very little way for the real protection of the river ; it all goes in payment of officers and staff ; the money expended for protection I pay voluntarily ; the most that we get from the Board of Conservators is the payment of the officers connected with the Board, or very little beyond that.

3834. When you speak of officers do you mean water bailiffs ?

No ; the Board of Conservators have not paid anything for them ; there is an inspector who gets 100 *l.* a year, whose duty it is to go round and see the water keepers do their duty ; to employ them, and to collect the license duties. There is a clerk who gets some 24 *l.* or 25 *l.* a year, and there is a board room to pay for ; then there are men who look after the weekly close time, and the amount received for licenses does very little beyond paying them ; therefore, to make the water-keepers of any use, somebody must furnish another sum of money.

3835. Do you think the amount of the license could be raised with advantage ?

I think the license duty ought to be raised very much. There is another thing we suffer very much from ; people go and fish in the small rivers in great numbers for trout ; the school boys fish, and it is quite usual for them to kill their ten or twelve dozen of fry in an afternoon, because there is no difficulty in killing those little things.

3836. You would suggest some legislation for the protection of the fry ?

I would

I would suggest that a duty should be put on trout fishing as well as salmon fishing; that would be a very great advantage.

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3837. When you prosecute parties for breaches of the fishery law on the Foyle, and the result of that prosecution is, that those parties are put in gaol in default of the payment of the fines, have the Board of Conservators or the fishery proprietors to support those persons while they are in gaol?

I do not know that the Board of Conservators give any support to them when they are in gaol.

3838. The only thing that the Board of Conservators do is to pay the costs of the prosecution?

I do not think they have to do that, for the parties that are prosecuted, if they are put in gaol, have to pay the cost of it; there is a fine sometimes imposed.

3839. Supposing the fine is not levied, from the inability of the person to pay it, who pays the expenses?

Then the expense of prosecuting is paid by the Board of Conservators: that expense is very trifling, because it is part of the inspector's duty to look after the prosecutions.

3840. Does it come out of his salary?

No, but his time is employed in doing it; there is no expense except the mere expense of the summons, and that is a very small matter.

3841. *Earl Cawdor.*] Is the proceeding before the magistrates?

Yes; they do not generally employ any lawyer about it.

3842. *Viscount Hutchinson.*] In the Foyle is there any public right of fishery?

No, there is no public right of fishery there, but the Society do not interfere or endeavour to prevent the public from fishing for flat fish.

3843. The question had reference to salmon only?

The public have no right whatever, and now they do not assume any right, to fish for salmon in the Foyle.

3844. *Chairman.*] Is not the fishery on the Foyle what is called a several fishery, belonging to the Irish Society, and held by them by a grant from the Crown?

Quite so. Some years ago, Lord Donegal's tenants assumed the right to fish below Culmore, and there have been several expensive trials about it. It has been at last decided that the public have no right whatever there.

3845. The several fishery giving the Irish Society an exclusive right?

Yes; the exclusive right from Magilligan and Green Castle to Greenbraes, near to the town of Lifford.

3846. *Viscount Hutchinson.*] Perhaps you are not aware that if this several fishery were situated in Scotland you would have to pay, not merely the whole cost of prosecuting an offender against the fishery laws, but, in the event of the offender not being able to pay the fine, and being committed to prison, you would have to pay for his support?

I was not aware of that.

3847. Supposing that was the case in Ireland, how would it affect you in protecting the fishery?

We would do the same as we do still.

3848. Would it not add to the expense of your preservation?

No doubt; but we would still prevent people fishing if we could.

3849. *Earl Ducie.*] At any cost?

At any cost.

3850. *Viscount Hutchinson.*] Do you think it would be a fair or just thing that you should be subjected to defraying the cost of maintaining these poachers in prison?

Of course I would say that it would be unjust, but I would not pretend to

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say what should be done. I would feel it a hardship if I was obliged to do it.

3851. *Chairman.*] Is it not a hard thing on the public to have to pay for the vindication of private rights?

I would think it a hard case if I had to pay it. You ask me if it is not a hard thing for the public to pay for the vindication of private rights. I do not know what the law is in Scotland, but in Ireland, if a man steals something else from me, and I am able to convict him, I should not have to pay for keeping him in gaol; supposing he stole a sheep from me.

3852. Viscount *Hutchinson.*] You consider stealing a sheep and stealing a salmon is exactly the same thing?

I do not see any difference; perhaps there may be a difference in the law.

3853. How would it be in the case of a man having committed an offence against the Game Laws?

I believe if a man is prosecuted for a breach of the game laws, the party prosecuting would have nothing to do with maintaining him in gaol.

3854. All the former questions I have put to you have been with respect to the Foyle; I believe you are also the lessee of the Bann fishery?

Yes.

3855. Who is the proprietor of that fishery?

The Irish Society; the two fisheries are included in the same lease.

3856. What means do you employ in the Bann for taking fish?

We do not employ either bag or stake nets in the Bann; we have the draught net, or net and coble; below Coleraine, and all down to the mouth of the Bann we use draught nets, and above Coleraine there are cuts or weirs. There is an old established place of fishing, where there is the Queen's share opened in the centre of the river at all times, and from six o'clock on Saturday night till six o'clock on the Monday morning all is open.

3857. Can you form any comparison of the present state of the fishery with what it was, say 10 or 12 years ago on the Bann?

I can tell you what I believe to be the state of it exactly; I have a memorandum of the comparative capture for a great many years, which I believe to be correct. This note of the capture goes back as far as 1808, and gives the several years until 1823. I need not tell your Lordships that this is not from my knowledge; it is from books which have been kept, and I believe this is extracted from Minutes of Evidence given before the Committee of the House of Commons in 1824; then I have a statement given by the servant of the fishery manager under the Irish Society in 1842, 1843 and 1844. This has not been given in the House of Commons, but was given before the Fishery Commissioners in 1844 by the manager of the Bann at that time.

The following Statement is delivered in:—

BANN FISHERY.

Minutes of Evidence before Committee of House of Commons in 1824.

GEORGE LITTLE, examined.

	Tons. cwt. qrs. lbs.					Tons. cwt. qrs. lbs.			
1808 - - - -	76	1	-	17	1816 - - - -	87	11	3	24
1809 - - - -	80	18	3	8	1817 - - - -	63	8	1	13
1810 - - - -	67	12	2	2	1818 - - - -	70	2	3	3
1811 - - - -	60	4	3	14	1819 - - - -	82	4	1	26
1812 - - - -	65	8	-	21	1820 - - - -	42	16	2	24
1813 - - - -	47	8	3	21	1821 - - - -	26	12	2	6
1814 - - - -	68	4	2	27	1822 - - - -	31	17	-	22
1815 - - - -	92	17	2	11	1823 - - - -	52	7	1	27

BANN.

BANN.

EVIDENCE of JOHN GRIFFITH before Commissioners in 1844.

CAPTURE.

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	1842.	1848.	1844.
February 1st - - -	1	- - -	4
March - - - -	6	11	7
April - - - -	35	36	167
May - - - -	467	624	1,074
June - - - -	4,624	6,488	4,605
July - - - -	4,852	11,256	7,009
August 12th - - -	3,605	3,543	2,145
	13,590	21,660	15,011

3858. *Chairman.*] To what do you attribute that great diminution in the fishery of the Bann?

I attribute it to no other cause than the capture outside. I believe firmly that there are as many fry produced in the Bann, and as many fish pass out of the Bann now, as there were at any other period; but they cannot be taken in the sea and in the river both.

3859. By what description of engines are they captured outside?

Altogether by bag nets.

3860. Not by stake nets?

Not so far as I know; stake nets cannot be fixed in the sea, because they would not stand.

3861. *Earl Cawdor.*] Do you mean that stake nets cannot be used between high and low-water?

I do not see how they could be used on the open sea coast.

3862. You mean that they could not be used in that particular locality?

Yes, so far as my knowledge goes; I never saw a stake net on the sea coast; the coast of Antrim and Giant's Causeway is perhaps familiar to your Lordships, and you will easily understand that it would be impossible to erect a stake net, therefore the bag net is a very capital engine for doing it; they have a sort of trap or pouch for the fish to go into, and every year, from improved knowledge, those bag nets are put further out; then there is what they call the leader to guide the fish, and if the fish strike upon it they cannot get past; the nature of the fish is to coast along; in our part of Ireland they are going westward, and they strike the coast about Fairhead, or somewhere in that direction; they are going along looking for the fresh water; and when they strike the leader of the bag net they go along it till they get into the pouch of the net.

3863. Does the bag net extend to the bottom of the sea when it is set in deep water?

It does not; the belief is that the salmon do not swim low, and if it is deep water that they do not go much below 10 or 15 or 20 feet at all events; and if they are in deep water they are generally within 10 or 12 feet of the surface.

3864. It has been said that that depends upon the state of the weather; that in certain states of the weather the salmon swim on the surface, and in other states of the weather they swim in deep water; is that consistent with your knowledge?

The only knowledge that I have about it is that the bag nets are placed in deep water, and that the leaders are not made sufficiently deep to reach to the bottom; there would be no difficulty in doing it; if the fishermen thought it was necessary that the leader of the bag net should go to the bottom, there is nothing in the world to prevent them from making them deep enough; they

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consider that they have attained their object by having the depth of the leader a certain distance down.

3865. Do you recollect what the depth of the leader generally is?

In deep water the leader is generally very deep; I suppose it goes down 20 feet in some cases.

3866. Do you mean the net?

It cannot be called a net; it is like a wall; the fish strike that wall, and they have either to get over the corked rope or go underneath.

3867. What is the depth of that?

In some cases it is 20 feet.

3868. There may be a great depth of water below that?

In some places there is a great depth of water below that, of course; towards the shore it goes to the bottom.

3869. Viscount *Hutchinson*.] Do you know about what period it was that bag nets first began to be used upon the north coast of Ireland, in the neighbourhood of the mouth of the Bann?

I only know from having heard of it; I think it was a person of the name of Hector, a man who came from Scotland, that first commenced to fish in that way in that neighbourhood; I think it was in 1842 or 1844, or perhaps before that; it must have been before that.

3870. Can it be shown that the decrease in the fisheries in the Bann occurred immediately after the introduction of this new kind of engine?

I do not think there is any difficulty about showing that; but I do not say that, taking the aggregate, there is any decrease in the fish.

3871. Including what is taken in the bag nets and what is taken in the rivers?

Taken altogether; if the fish taken on the coast were added to the fish taken in the rivers, I am not prepared to say that there is a very great decrease, or any decrease at all.

3872. Earl *Ducie*.] Has not much greater care been taken of late years of salmon, owing to the recent legislation?

I do not know that there is any difference in my recollection for the last nine or ten years.

3873. Take the last 30 years?

There has been legislation about it in the last 30 years, but I rather think that the people in the river, when they had the fish all to themselves, were quite as anxious about it then as they are now.

3874. Viscount *Hutchinson*.] If the bag nets on the coast were done away with, is it your opinion that the fishery in the Bann, of which you are the lessee, would be restored to its former prosperity?

I believe it would; I do not see anything to prevent it; I can speak with confidence in what I am going to say: we can notice the effect of a storm; if a high wind rises and disarranges the bag nets near to the Bann, we know the fact in 12 hours afterwards.

3875. By an increased take of fish in the river?

By the fish immediately getting in.

3876. As to the cost of fishing, are you sufficiently familiar with the process of bag net fishing to be able to speak of the comparative cost of fishing by means of that engine, and by fishing with the weir as you do at Coleraine, or by fishing with the draught net?

If we had leave to fish as we liked we could do it at a tenth of the cost; we could fish with the cuts, where the fish would be taken in the least expensive way.

3877. Will you explain more fully what you mean?

If bag nets, draught nets, and everything else were prevented, the fish would come up as they do at Coleraine; there are cuts which no fish could pass, and there

there they could be taken ; there would be no expense in bringing the fish to the cuts, because the fish would come of themselves.

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3878. There would be the Queen's share ?

We could afford to lose that, if there were nobody else to take them.

3879. It is because of the bag net fishing outside that you are now obliged to resort to draught net fishing ?

No, it is not because of the bag nets ; there would be seasons of the year when the water would be low, and when the fish could not ascend to the cuts, and then it would become necessary and profitable to fish with the draught nets even lower down.

3880. Have you had any opportunity of comparing the quality of the salmon taken in the bag nets on the coast with the quality of those taken in your weirs above Coleraine ?

Although the public do not say it, I would say that the further to sea the fish are taken the better ; the more immediately out of the salt water the fish is the better ; the people fancy, all about Coleraine, that the cut fish are the best, but I do not think so.

3881. Does that opinion go so far as to influence the price ?

Not a bit ; the difference is scarcely perceptible ; and I believe a fish would run the distance in one tide, that is 12 hours. I think the fish would be at sea with one tide, and would be up at the cuts the next ; the difference must be very little ; but, I think, at Derry, on the Foyle, the fish, at the end of the season, lie about the river for, perhaps, some weeks, and do not ascend the stream so early in the season ; therefore, when they get into the river they may be in it some weeks. I would not say that salmon taken up near Strabane were as good as salmon taken down below Culmore.

3882. You have no reason to suppose, with respect to the Bann, that you get a lower price for your fish taken at the cuts than the bag net fishers get for theirs taken out of the sea ?

I think we would get more ; the fish are not so much abused ; they do not hurt themselves so much as they do in the bag nets, and they can be sent to market in a better state, for they are put in ice in 15 minutes after they are killed ; in fact, they are packed in ice almost alive, and that cannot be done in the bag net fishing.

3883. Have you ever heard of large quantities of fish being so injured in bag nets as to be rendered unfit for the market ?

I have not ; they may be slightly injured, just as I am stating ; but as to being injured so as to be rendered unfit for the market, I do not see how that can happen.

3884. From your observation, do you think that the proprietors of these bag nets on the coast outside the Bann observe the weekly close time ?

I think they do not except when they cannot help it.

3885. For what reason do you think that they do not observe the weekly close time ; is it because they find it impossible, on account of the state of the weather ?

I do not think they find it impossible, but there is nobody to look after them, and they lie at a long distance ; two years ago I was at Portrush, where there is a beautiful fishery, but I saw nothing of it ; I saw the coast guard going out in a boat, and from one net they brought something like 80 salmon ; they seized the net and the boat altogether, but the man got his fish back for 10 £, and petitioned and got back the money.

3886. What legislation would you suggest which would be effectual to oblige those bag net fishers to observe the weekly close time ?

I do not know that any improvement could be made. I think the law, if it is properly carried out, is strong enough as it is ; if you ask me as to the effect of it, I feel that the proprietary interest in the fisheries in Ireland is completely changing hands ; perhaps it is a matter that the public do not care anything about ; the proprietors of the rivers some time back were the sole proprietors of the salmon fisheries ; they are now becoming every year less and less interested in

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them, and the coast fishers are becoming the proprietors, and they contribute almost nothing to the protection of the salmon, and they contribute less to the other taxes; for instance, on the Foyle and the Bann, within the last two years, since the valuation has been completed, we pay now something like 300 *l.* a year as a new tax for county cess; we pay poor rates as well. I believe those are all the taxes that we pay; but the coast fishers are not subject to be rated, and they are not valued at all.

3887. You say that the coast fishers pay no rates upon their fisheries; does not that arise from some oversight?

They were not known as being valuable fisheries some time back, and, unless some of them, they are very slightly valued.

3888. Bag net fishers pay a license duty, do they not?

They must do that. In the district adjoining us the license is only 2 *l.* 10 *s.* for a bag net.

3889. You think that a great deal too little?

It does not amount to anything, scarcely.

3890. Would it be possible, in place of a license duty, to impose a rate upon each bag net fishery, according to the rental paid to the proprietor?

Yes, that would do.

3891. Would not that be much more fair and equal than imposing a mere license duty?

Yes, it would. At the coast fisheries the landlord and tenant understand each other much better than the large proprietors like the Irish Society, and it would be difficult to ascertain even the rental. It is difficult, sometimes, unless a seizure is made, to ascertain who is the owner of a bag net; they are mostly fished by poor people, and it is a difficult question, sometimes, to determine who is the party that is committing the offence.

3892-3. What steps are taken for the preservation of the breeding fish in the Bann?

Anywhere upon the river where there are salmon spawning there are water keepers placed, whose duty it is to attend to that and nothing else.

3894. From what fund are those water keepers paid?

I have been stating that I pay them in the Foyle.

3895. I think you stated at the same time that you did not think it worth while to continue a private subscription to the Bann?

We have ceased to do so for some years.

3896. Who are the parties who pay the keepers on the Bann?

Nobody gives anything voluntarily. It is now confined to the amount raised from the license duty.

3897. By the conservators?

By the conservators. The coast fishers have not yet seen their interest in doing it. The only year there was a voluntary sum raised by all, was the year when a number of bag nets, approaching nearly to 100, paid it; but they would not do so the second year.

3898. Do you think that the quantity of fish taken in the bag net fisheries is not decreasing?

I think it is increasing very greatly.

3899. Earl *Ducie*.] Why should it increase; has any new method of fishing been introduced?

Every year they are improving very much, by having better engines, and extending them further to sea. The length of the leader to the bag is much longer.

3900. Lord *Polwarth*.] What do you think may be the ultimate result of this transfer of property from the rivers to the coast, with respect to the breeding of fish; the coast people seem to take no interest in the breeding of fish. Do you expect that the river people will continue to take an interest in the breeding of fish?

I think

I think they will not; but I think the coast fishers will see their own interests in doing so.

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3901. If the proprietors of the rivers cease to take an interest in the fishing will it be easy for the coast proprietors to protect the fish against the inclination and wishes, or without the co-operation of the proprietors of the rivers?

I think a sufficient fund is the only thing that is wanted; there is no opposition to it.

3902. With funds, and without the co-operation of the inhabitants of the country, you think the preservation of the breeding fish can be effected?

I do not think the inhabitants would give much assistance in protecting them.

3903. Nor the proprietors?

The proprietors do.

3904. Do not the breeding streams pass through the domains of the gentlemen of the country?

Yes, very many of the rivers in which the salmon breed are in very wild mountainous districts. The land is not very valuable through which they pass. It is not exactly mountain district but rough ground.

3905. Viscount *Hutchinson*.] Do you know anything of the fisheries on the Bush?

I know something of them.

3906. Have the Bush fisheries suffered from bag nets?

The river has suffered, but the proprietor fishes with long nets outside. There is a fishery that has no river attached to it, on the north coast of Ireland, at Portrush, belonging to Lord Antrim.

3907. Is not that close to the mouth of the Bann?

It is three miles from the mouth of the Bann. Portrush has been spoken of as a place for making a Harbour of Refuge. The Skerries rocks lie off it a little bit inside. I might mention, which I know to be a fact, that the waters pass through the sound there; and if nets are placed upon the coast, they take the fish; if you place them on the outside of the Skerries, which is only a short distance, there would be no fish in the net, because the fish keep close to the coast, and they must pass there. I believe the great bulk of the Bann and Foyle fish pass through the Sound.

3908. Earl *Ducie*.] Do you think that the Bush fish go there?

I do not, because the Bush is eastward, and the fish are going west; unless it may be that the fish are scattered and sent off the coast; when they meet with a bag net on their way, it sends them out of the way, therefore they get scattered; there may an odd fish go that length, but I do not think the Bush fish go so far.

3909. Portrush is not five miles from the mouth of the Bann, is it?

It is not five miles. But the fish are coming the other way, and would be more likely to be taken at the Causeway.

3910. Viscount *Hutchinson*.] Some evidence has been given before the Committee by witnesses from Scotland, which tends to show that different varieties of salmon frequent different rivers to such an extent, that an experienced fisher would be able on inspection to tell from what river the fish came. As you are the lessee of two different rivers, the Bann and the Foyle, you will be able to state whether you have observed anything of that sort in your experience?

Yes; our people say that they would know a Bann fish from a Bush fish, and they would know a Foyle fish from a Bann fish. I believe, to a certain extent they may, but not so fully as some people would make you believe. They say that a Bann fish is better than a Foyle fish.

3911. Earl *Ducie*.] Do the Bann fish command a higher price in the market than a Foyle fish?

They do; but that arises from the fact that they are a month earlier in the market, and that which comes early is more valued than that which is late. Again, there is another popular belief that the fish are in season at all times

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in Rathmelton, whereas they are not, nor are they anywhere else ; but they come earlier, and people can get fish at Rathmelton when they cannot get fish anywhere else ; and when there are plenty elsewhere there are none at Rathmelton ; and that is why they say, they are at all seasons of the year to be got at Rathmelton.

3912. Viscount *Hutchinson*.] Is the Bann fishing earlier than the Foyle ?
 Not much earlier ; about a month.

3913. During what periods of the year do the bag net fishers on the coast fish ; I presume that their close time is the same as yours ?
 Yes.

3914. In practice, when do they begin to fish, and when do they leave off ?
 They leave off when the season closes, and they begin to fish when salmon come.

3915. About what period of the year does that generally occur ?
 At Portrush and at the Bann, the present time is the best season of the year, there are greater numbers.

3916. When do the fishers begin to set their nets ?
 That I am not able to say exactly, because there is no particular time ; they may put out their nets to try what is to be done, and if there are no fish to be got they can bring them in again, and not let them out for a week longer ; some years they begin earlier than in others. They first try with one net, and if that net is successful in killing fish, they will put out the others sooner, but if it does not do, they may not put it out the next week at all. They should take them up always on Saturday night, and if a net has been out a week, and is brought in on Saturday, not having been killing fish, it is possible that they may not put it out the next week. I would say that they would not begin much before the beginning of May. They take salmon in April, but it is very few.

3917. Earl *Ducie*.] Have you any suggestion to make, or further information to give the Committee ?
 No.

The Witness is directed to withdraw.

MR. NELSON T. FOLEY, is called in, and examined.

Mr. N. T. Foley.

3918. Viscount *Hutchinson*.] I BELIEVE you are the lessee of the Duke of Devonshire's fishings at Lismore ?

Yes, joint tenant with Mr. Cliff ; we have no lease, we hold at will.

3919. How long have you been engaged in this fishery ?
 I have been engaged in it from my youth ; it has been in our family, I dare say, over 80 years.

3920. Have you and your predecessors been in the habit of keeping a correct account of the annual produce of that fishery ?
 We have.

3921. You are in a position to give the Committee a comparison of the production of that fishery before the passing of the Act of 1842, and since the passing of that Act ?

At this moment, I am not ; when I got your Lordships' circular, I was in the west of Ireland ; it was quite impossible for me to go to Lismore and come here to-day.

3922. Will you furnish the Committee with that statement ?
 I can furnish your Lordships with it.

3923. You can state, generally, whether the fishery has improved or otherwise since the passing of the Act of 1842 ?

I think it has fallen off greatly since the passing of the Act of 1842.

3924. To

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3924. To what do you attribute that falling off?

We had eight or ten years of very great scarcity of fish in the river, that could hardly be attributed to any known cause; there seemed to be a kind of disease among salmon, and they did not come into the river. I believe it was general, both through Ireland and Scotland, at that time.

3925. What means do you employ at Lismore for taking the fish?

We have a weir with a box at each end, which is commonly called fishing by boxes, and the seine, or draft net, is also used.

3926. Is there a Queen's gap in the weir?

No.

3927. What is the reason there is not?

There never has been; being one of the chartered fisheries, it has been exempt.

3927*. You are bound, however, to observe the Sunday close time?

Yes.

3928. Do you, on Sundays, open your boxes and let the fish through?

Yes; we are most particular in that respect.

3929. During the annual close time do you give a free passage for the fish up the river?

Yes, perfectly free; that is strictly observed; I should state that we fish with a bag net on the sea coast and fly nets; we also fish a stake net jointly with the proprietor of the land.

3930. Do you hold those bag and stake nets on the coast from the Duke of Devonshire?

It is to keep up the Duke's right of fishing on the sea coast that we fish with bag nets and fly nets.

3931. Those fisheries are not part of the Duke of Devonshire's fisheries at Lismore?

Yes; the Duke of Devonshire's fisheries extend there; they are under the same charter.

3932. Are there other fisheries than the fisheries below Lismore?

There are several stake net weirs, as they are commonly called, fished by the tenantry of the adjoining lands.

3933. Has not Mr. Smith, of Ballynatry, a fishery there?

Yes.

3934. Was not there, at one time, a lawsuit between the Duke of Devonshire and some of those parties?

There was a very protracted lawsuit between the Duke of Devonshire and Mr. Smith.

3935. The Duke's opinion was that those fisheries below Lismore were illegal?

The Duke succeeded in establishing his right to them, but the judge who tried the case made some observation whether if wire were used it would not evade the point, and all the weir-owners upon the river immediately took up the suggestion and put iron rods upon their weirs.

3936. In place of nets?

Yes, which was still an encroachment upon the Duke of Devonshire's fishing as much as the nets.

3937. Lord *Lovat*.] Were the weirs formed with the iron rods?

They were formed with stakes, but instead of being netted, iron rods were nailed upon them; still it was the identical site, and just as great an encroachment upon the Duke of Devonshire's rights as if the net had been kept up.

3938. Viscount *Hutchinson*.] As you are engaged in fishing with the weir at Lismore, and in fishing with stake and bag nets upon the coast, can you give the Committee the relative cost of those two modes of fishing?

The relative cost of the nets that we use at the fishery at Lismore is, comparatively speaking, very trifling; with regard to the bag net, I think the first cost may be about the same as the cost of the seine, but then the bag net is subject to constant injury from storms and from sea weed getting in it, forming

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almost

Mr. N. T. Foley. almost a solid mass ; they are frequently carried away and broken, and costs sometimes 10 *l.*, 12 *l.*, or 15 *l.* to repair it. I consider them very expensive ; a far more expensive mode of fishing than ours adopted at Lismore.

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3939. If the Duke of Devonshire were in possession of what you believe to be his rights, that is, if he had the sole power of fishing the Blackwater from Lismore to the sea, would it not be cheaper for him, or for you as his tenant, to fish entirely at Lismore ?

Entirely contrary to my wish we are forced to use these fixed engines, in order to prevent other parties who have encroached and have no right to encroach below Youghal seaward, from interfering with the Duke's rights, and to avoid litigation with them.

3940. Is it not also for the purpose of taking some of the fish which would otherwise get into the stake nets and ebb weirs on the Blackwater, between Lismore and Youghal.

I scarcely think we would fish them for that reason. I disapprove of them very much. I think they are injurious in scaring the fish from the river before they become fixed ; that is not an opinion, but a matter that has come under my observation in looking at a fish in a clear place from a boat, on one occasion about four or five years since.

3941. Will you describe what you saw ?

I moored a boat over a bag net ; it was a calm day, and I lay there perfectly still. I saw a large shoal of fish come compact together, led by one or two small fish ; the water was so clear, that I could distinctly see them ; they felt their way, and when they struck against the net, they turned off seaward. I observed each time that the fish were more scattered, and ultimately four or five of them got into the bag net, and one of them having got foul in the net, scared the others outside ; they took alarm immediately, and went off seaward.

3942. Lord *Polwarth.*] Did they make various attempts ?

Yes, they were feeling their way ; they seemed to be cautious.

3943. Did they leave the net and come back again ?

I remarked, when they first approached the net, they were in a compact close body, as if they were led by a leader ; each time they approached they were more scattered.

3944. What space of time might there be between the separate approaches ?

I think I remained in the boat probably an hour altogether.

3945. There were some minutes between each attempt ?

Yes, several minutes between ; my impression is, that they had a leader or pilot fish, a little fish that pilots them ; we consider that pilot to be a small salmon, and not a large one ; and, as well as I could make an observation, that came out to be true.

3946. Viscount *Hutchinson.*] As to the natural history of the fish, we have had a good deal of evidence from Scotland before us, and some of the witnesses from Scotland have stated their opinion that salmon spawn in the sea ; is that your opinion ?

Quite the contrary opinion. I am quite certain they do not ; and I am equally certain that fry will not come out of the sea ; they always spawn in a stony shingly place, where there is a mixture of gravel and small stones.

3947. In running fresh water ?

Yes, it is essential that they should, for the circulation of air to get to the spawning-beds.

3948. Therefore any legislation with respect to fisheries which was based upon the opinion that salmon may or do spawn in the sea would be based upon a very faulty foundation ?

Certainly ; they do not even spawn in the lower part of the tidal way.

3949. Lord *Polwarth.*] They require aerated water to spawn in ?

Yes, they do ; we tried the artificial propagation of salmon at Lismore for some time, but the water did not appear to be suited to the young fish ; they degenerated,

generated, and were delicate and feeble; we gave it up; besides, I would much rather see good protection to the spawning fish than having recourse to artificial means.

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3950. Viscount *Hutchinson*.] Have you a Board of Conservators?

Yes, it is No. 4 district of the Board of Works.

3951. That has been since the Act of 1848?

Yes.

3952. Do you think that system works well?

I think it is a good system; I think it works well.

3953. I suppose you are a member of the Board?

I am *ex officio* a member of the Board; all fishery proprietors valued at 50 *l.* are members of the Board; there is a conflicting interest on that Board; the interests of the six conservators of the upper rivers are different from the lower proprietors; they wish to get all the fish they can up, and there is certainly not the best feeling existing.

3954. Do not you think that that may possibly arise from the fact that there is no Queen's share in your great weir at Lismore?

I do not know; I think if there was a Queen's share they would want to get the whole weir down. I would not give the Duke of Devonshire a rent, and I would not fish it unless at a salary, if there was a Queen's share in it.

3955. Lord *Lovat*.] Can the fish get over the weir when the water is high? When the water is high they can.

3956. Does your bag net go down to the bottom where you saw the fish strike?

It does, to the bottom. The upper part rises with the tide; when the tide is out it falls again.

3957. Were those fish swimming deep?

Yes.

3958. What depth, do you suppose?

I suppose there was 12 or 14 feet of water at the time.

3959. Were they near the bottom?

Yes; the fish swim close to the bottom.

3960. If the net had not been at the bottom would they have passed under it?

Yes; but the net is so contrived as to keep close to the bottom.

3961. At high water it is at the bottom still?

Yes, the sole rope is at the bottom.

3962. Viscount *Hutchinson*.] What means are employed for taking fish on the Blackwater, above Lismore?

There are two seines employed there by private individuals; there is no chartered fishery above the Duke of Devonshire's rights, extend for about three miles above Lismore.

3963. Is not there a good deal of angling?

Yes; there is a good deal of angling.

3964. Are you not aware that there are numbers of weirs in other rivers in Ireland in which there are Queen's gaps?

Yes; I am aware of that.

3965. There is a Queen's gap in the weir in the Corrib, is there not?

Yes; I am aware of several that have.

3966. Are considerable rents paid for some of those fisheries?

Yes.

3967. It being the fact that upon those other fisheries where Queen's gaps exist, considerable rents are paid, and the fisheries are of considerable value, why do you suppose that the Lismore fishery would become valueless with a Queen's gap in it?

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In any of those fisheries where I have seen a Queen's gap, the waters are more extended; there is a very rapid run of water at Lismore, and if there is a trifling rise in the river we cannot cast our seines. I think that the fishery at Lismore is so circumstanced that the great body of the fish would face to the Queen's gap.

3968. Lord *Lovat*.] What size is the Queen's share in those weirs where it exists?

I am not prepared at this moment to say; below Lismore there are 27 stake-net weirs, and five head weirs and timber tide weirs.

3969. Viscount *Hutchinson*.] Can you state the amount which is derived by the conservators from licenses on the Blackwater?

I think it is about 300 £. or 350 £. a year.

3970. Do you think that is sufficient for the purposes of the preservation of the river?

I do not think it is at all sufficient.

3971. Do private parties come forward to add anything to the funds collected under the Act?

No private parties come forward; my partner and myself do not come forward, because we have been opposed in a great measure by the upper proprietors, and we do not feel called upon.

3972. Are you satisfied with the present close season?

No, it is not suited to the Blackwater. The extension of the fishing season lately by a bye-law of the Board of Works was very unfortunate; it is too late. The first season which we had under the Act was the proper one, beginning on the 1st of February, and permitting fishing up to the last day of August at the latest. This last season it was my turn, or, at least, I fished on the last night of fishing up to 10 or 11 o'clock. We took 33 salmon, averaging 24½ lbs. each; they were all splendid fish, pea fish, and evidently early spawners. I regretted, certainly, that they should be killed; but if we had let them go they would have had a chance of being killed above. I sent them to Dublin; we had no ice, therefore greater part of our fish that season was sent to Dublin. I had an opportunity some months afterwards of asking the salesman what he thought of those 33 fish; he said they were splendid fish in size, but that they cut as white as chalk, and that it was a great pity to kill them; they were all heavy in pea; our present fishing season commences on the 13th of February, and continues up to the 14th of September.

3973. Are the rod fishers above the tideway allowed to fish later than that?

They are allowed to fish up to the 9th October.

3974. Do you approve of that?

I should not approve of anything that would kill the breeding fish, but it is less objectionable than to have net fishing or engines used, because the capture is very much more trifling.

3975. Inasmuch as the funds which are collected from the licenses are not sufficient for the proper preservation of the river, do not you feel yourselves a good deal at the mercy of the proprietors of the upper waters, for the preservation of the spawning fish?

I do not. I think that if they had the whole of the river they would all kill as much as they could.

3976. If a sufficient number of fish were allowed to go up the river to give them fair sport in angling, do not you think they would take more trouble to preserve the spawning fish in the winter?

I do not think they would take one bit more trouble, and I am justified in saying that when they allow game to be killed at their doors by unqualified persons, they take very little trouble about it; it is a way that we have in Ireland; we often allow many things to pass over.

3977. Can you suggest any way in which the proprietors of the upper waters, where

where fish spawn, could be induced to take some interest in the preservation of the breed of salmon ?

I cannot.

3978. I suppose you look forward with some dismay to the prospects of the fisheries in Ireland ?

I think it is only by enforcing the law that we can protect them.

3979. You have already stated that the funds raised from the licenses are insufficient for that purpose ?

I think they are insufficient.

3980. Would you suggest that the license duty should be raised ?

I think the license duty is not equally levied ; it is not proportionate to the mode of capture. For instance, I know some of the weirs in the Blackwater must pay 500*l.* clear, and those only contribute 7*l.* 10*s.* towards the fund as stake nets.

3981. Would it not be possible, in lieu of a license duty, to levy an assessment upon those engines for the taking of salmon in proportion to the profit derived from them ?

I think it would.

3982. Do you think that would be a fairer mode of taxation ?

Yes ; I think there should be some adjustment, so that the fisheries should be assessed more equitably.

3983. Lord *Polwarth.*] Do you think that these upper proprietors ought to take an interest in preserving the salmon for your benefit only ?

I think where the Saturday close time is strictly observed, as we observe it, that the upper waters would have an abundant supply of fish for angling.

3984. So as to give them some interest in the fish ?

Yes ; we must take into account, with these 27 weirs on the Blackwater, that there is a great difficulty in making them observe the Saturday close time, inasmuch as the men employed as water bailiffs are in the pay of some of these parties. These weirs are not fished by the proprietors of the land ; they generally go with the land, and are fished, in the greater number of instances, by common working farmers, who have no scruple in giving 5*s.* a tide, which I believe is the rate exacted by the water bailiffs, for the permission to fish during the Saturday close time. One gentleman told me that he was applied to by one of the water bailiffs for their dues, and he said, "What dues?" to which he replied, "the 5*s.* a tide for allowing your weir to fish." He said, "I am not going to break the law, and I shall not pay it. I will give you nothing." The result was that, through the connivance of this gentleman's fisherman, I think the following Saturday, or a few Saturdays after, this gentleman's weir was found by the water bailiff closed, and he took his knife out, and cut the net, and did a very great deal of injury ; I suppose 4*l.* or 5*l.* would not repair it. If the Saturday close time is strictly observed in stake nets and bag nets, I think there would be a very abundant supply of fish for the anglers, and an early close time, so that there would be a good stock of fish as breeders.

3985. Viscount *Hutchinson.*] Are not the coast guard and the constabulary now called upon to assist in seeing that the close time is properly observed ?

A police constable generally attends at our weir on Saturday ; he can see that at any moment, but it would be quite impossible for the constabulary to look after the stake nets. The coast guard are stationed at Youghal, and I am not aware that they look after the Saturday close time ; my partner and myself have been obliged to keep a boat of our own on the river, to try and have the Saturday close time observed.

3986. To that extent you do take some trouble for the supervision of the river ?

Yes ; when I said that we took no trouble, I meant that we did not appoint any water bailiff for the winter preservation ; we have no additional water bailiffs ; we may in one or two instances, upon the streams near us, put on a man for the few spawning months, and to look after the fry. Before the passing of the Act which imposed the license duty, we spent about 250*l.* a year ourselves in

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protection, and had our water bailiffs under our own control. All that 250 *l.* went to the working man; and now there is a certain amount, about 300 *l.* or 350 *l.* a year; I will not speak positively from memory, as I did not come direct from Lismore. I could not bring any documentary evidence, but there is a certain expense for machinery; an inspector has to be paid, and an assistant deputy inspector.

3987. Have you any objection to state what the rental is which you pay to the Duke of Devonshire for this fishery?
 £. 700.

3988. Was it not considerably more in former years?

My father had entered into an arrangement to pay 1,000 *l.* a year, or some increased rental, if the stake nets on the Blackwater were taken down; that not having been accomplished, we went on at the old rental. The Duke of Devonshire pays rents to the church for the fourth fish and the tenth fish. He does not receive the whole 700 *l.* a year. The fourth fish, if I do not mistake, is 200 *l.* a year, and I think he has about 70 *l.* a year to pay for the tenth fish.

3989. To whom does he pay these rents?

To the church; I think the tenth goes to the Ecclesiastical Commissioners.

3990. As I understand, you pay the Duke of Devonshire 700 *l.* a year net, and then you pay for him the fourth fish and the tenth fish to other parties?

No, his agent pays it out of the 700 *l.* a year; we have nothing to do but pay the net rent.

3991. Lord *Polwarth.*] About what is the annual rent of all the fisheries in the Blackwater?

I believe the amount of fish taken at Youghal and Lismore must be worth 6,000 *l.* or 7,000 *l.* a year.

3992. Viscount *Hutchinson.*] From Lismore to the sea?

Yes; taking it merely as a rough calculation, I should think it must be 6,000 *l.* or 7,000 *l.* a year; I mean the fish taken in the Blackwater and the estuary.

3993. Lord *Polwarth.*] What amount of assessment is paid for protection?

I will not say that I am quite correct in saying what amount the assessment comes to, but I think it certainly is very little over 300 *l.*; I do not think there is more than 300 *l.*, which is a very small assessment, taking the vast extent of tributaries; it is a very difficult river to protect, because there are so many tributaries and mountain streams; every man living upon these streams is a poacher.

3994. Viscount *Hutchinson.*] Has any attempt ever been made to introduce bag nets into the Blackwater between Lismore and Youghal?

Never between Lismore and Youghal.

3995. They were illegal before the Act of 1842?

Yes, the introduction of bag nets upon the coast is of very recent date.

3996. Supposing bag nets in any situation were declared illegal all over Ireland, what effect do you think that would have upon your fisheries?

I think it would give an increased quantity of fish to the rivers.

3997. If that measure were coupled with provisions to oblige the stake and head weir fishers in the river to observe the Sunday close time, would not you feel that it would very much improve your position?

It would very much improve it, no doubt. There is an engine that is legalised or protected by the Act of 1842, which I think is most injurious to the spents; that is the old head weir or timber-tied weir; it is less capable of capturing the spring fish or the fish in season; but that is a most destructive engine for the spents that are going to the sea.

3998. *Chairman.*] Have any salmon ladders been erected at mill weirs or dams on the Blackwater?

Yes, at Glandallen.

3999. Does it work well?

I understood it is working well, still there is a very good fishing below the weirs, on the property of Mr. Keary.

4000. Does

4000. Does that ladder enable the fish to ascend?

It does.

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4001. Are there any mill weirs or dams on the Blackwater that are injurious to the breed of salmon?

This weir at Glandallen was particularly injurious to the breed of salmon.

4002. Before the construction of the ladder?

Yes, and it still requires a great deal of watching; the salmon were driven by the stream to the large water wheel, and when a great number collected there, the miller's men shut off the supply, and then there was only eight or ten inches of water, and the fish were slaughtered in hundreds; it is not so much now, because it has got into the hands of a gentleman who is very particular himself, and there is not the same destruction as there used to be in former years; at least, I have not heard of it.

4003. Does much destruction take place at other mills?

It has not been to the same extent, it depends in a great measure upon the watchfulness of the parties. I do not make any charge against the former proprietor of the weir to which I have referred; it is almost an impossibility to prevent the miller's men from killing the fish.

4004. Even when the ladder has been constructed?

In any weir they are naturally poachers.

4005. Are you now referring to fish running into the mill tail?

Into the mill-dam; they are attracted by the rapid stream passing over, and the miller's men, as I wished to convey before, stop the mill from working altogether, and then, of course, the mill race is nearly dry, and then the salmon are at their mercy; even with a watchful proprietor, it is very hard to prevent them.

4006. *Viscount Hutchinson.*] So that the damage done at a mill depends very much upon the watchfulness of the proprietor?

Yes, and the class of men who are under the head miller.

4007. *Chairman.*] Is there a gap or an opening in most of the existing mill dams?

There is no gap in any of those on the Blackwater that I know of, except the stairs made a few years ago by the Fishery Commissioners.

4008. *Lord Polwarth.*] At whose expense were those stairs made?

The expense was paid out of the funds of the Board of Conservators.

4009. It was not paid by the mill owners?

No.

4010. *Chairman.*] Any mill owner erecting a new dam would be compellable to make a gap at his own expense?

I believe he would under the Act, but it would be very dangerous to meddle with the milling power in Ireland; I should say that it would require very great protection on the part of the Legislature.

4011. Are you aware that the existing Salmon Fishery Acts relating to Ireland are about to be cancelled, and a new Act proposed in the ensuing Session?

I heard that there was something in contemplation.

4012. Can you suggest any alteration or amendment in the law?

I could, but not at this moment; I should have to go through the Acts; I could make some suggestions that might be beneficial.

4013. Can you make any suggestions, so far as you know, that would be available for the amendment of the Scotch law?

I am not acquainted with Scotland; I think the present Act of Ireland is very good, with some trifling alterations.

4014. Is not the limit at which fixed engines can be placed near rivers in Ireland one statute mile seaward from the mouth of the river?

When the mouth of the river is defined; it has never been defined on the Blackwater.

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4015. Have

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4015. Have not you found occasion to request the intervention of the Commissioners with respect to the limits of the mouth of the Blackwater ?

I thought at one time to call upon the Commissioners to define the mouth with regard to putting an end to these bag nets on the coast, but I found that the bag nets were fixed barely beyond where, in all human probability, the Commissioners would have held was the mouth of the river ; I had a doubt upon the subject, but I thought I had better let the matter rest for a time.

4016. Viscount *Hutchinson.*] What is about the breadth of the river at Youghal-bridge ?

Over half a mile.

4017. *Chairman.*] At high or low-water ?

I should say it must be nearly three quarters of a mile at high-water, and perhaps half a mile at low-water ; I am merely speaking from guess.

4018. Viscount *Hutchinson.*] Do you find any difficulty in observing the Saturday close time in your bag nets on the coast ?

Sometimes there is a difficulty in observing the Saturday close time for the bag nets and the fly nets.

4019. On account of the severity of the weather ?

Yes ; it is a very exposed shore.

4020. Can you state whether the other bag net fishers in your neighbourhood are in the habit of observing the Saturday close time ?

Some of them, I am credibly informed, evade the close time ; they could take up their nets when they say that they are prevented by stress of weather.

4021. *Chairman.*] Are the penalties sometimes inflicted for the non-observance of the Saturday close time ?

They are with respect to the stake net weirs on the river Blackwater ; they could be opened almost in any weather, because they are land-locked.

4022. Viscount *Hutchinson.*] Anything above Youghal ?

Yes, anything above Youghal ; there is scarcely a weir on the river that could not observe the Saturday close time ; not one day in the season could they be prevented from stress of weather, because they could come from the inside and open them.

4023. Have you reason to believe that the close time is not observed there ?

I have every reason to believe so.

4024. Lord *Polwarth.*] The chance of the take is quite equivalent to the chance of the penalty ?

Some of those stake weirs may take £20 l. or 25 l. worth of salmon at one time, when there is a good run.

4025. What is the penalty ?

£. 10.

4026. Viscount *Hutchinson.*] The penalty is 10 l. ; but that does not include the forfeiture of the net ?

It does not.

4027. *Chairman.*] Does not the coast guard enforce the observance of the Saturday close time ?

At Youghal the coast guard do not take any interest in watching the close time.

4028. Have your fishings increased or decreased in value since you have been the lessee of them ?

They have decreased in value.

4029. For what term are they held ?

By the year, at the will of the Duke of Devonshire.

4030. Do you continue to give the same rent that you first gave for them ?

We continue to give the same rent ; there has not been any alteration to my knowledge.

4031. Then

4031. Then the profits are less than they used to be ?

Yes ; this has been a very bad fishing year. The three years previous to the past were very good, but then we had about nine successive years of very indifferent fishing.

Mr. N. T. Foley.

22d June 1860.

4032. Viscount *Hutchinson*.] To account for the fact that you give the Duke of Devonshire the same rent as you did in former years, is it not the fact that you have now, since the opening of railways and steam communication with England, much greater facilities for sending your fish to the market, and that you get a better price for them ?

Yes ; last season, but for the great facility of transit, the fishery would not have paid expenses, from the want of ice, and the short bad run of fish.

4033. *Chairman*.] Does the take of fish fluctuate very much in your river ?
It fluctuates very much, from a variety of causes which I cannot assign.

4034. When you speak of a falling off, do you think that it is a permanent or an accidental falling off ?

When I speak of a falling off, I think in many seasons it is quite an accidental falling off, and not a permanent one ; we have, some years, very good fishing ; the last three years were particularly good spring fishings, and that is the time that the salmon are the most valuable for the English market.

4035. Lord *Lovat*.] Do you say that you have no ice ?

We had not last year, but we have an abundant supply this season.

4036. Have you, generally, a good supply of ice ?

Generally ; in some mild winters we do not get it ; we are so far inland that we cannot import ; it is not the first cost that would prevent us from importing when we have not got ice, but the waste in changing it from the vessel to the flats, and from flats to carts ; from one ton I do not suppose we would have at the end of the season, probable five hundredweight of ice.

4037. *Chairman*.] Where do you get your ice.

We float a meadow of seven or eight acres in extent, and when that is frozen we draw the slide and let the water off, and that leaves the ice upon the grass.

4038. Is London your principal market ?

No, Liverpool ; we have an establishment of our own in Liverpool, and our salesman sends up to London on some occasions ; we tried the London market but we very often came in at an unlucky time for us ; prices were down, and we had no way of ascertaining the price ; when we send to our establishment in Liverpool our salesman is advised by telegraph of the price in London, and he sends according to the state of the London market.

4039. Have you no salesman or agent in London ?

No we have not ; our fish go through other hands into London ; I should say the greatest portion of the fish is used in the manufacturing district north of Liverpool.

4040. Do your salmon compete successfully in these markets with the Scotch salmon ?

I think it does ; our salmon, from the mode of capture, comes in very prime condition into the market.

4041. And commands a high price ?

Yes ; it is in far superior condition to the fish purchased by the factors at Youghal or other sea ports ; it is taken within a few hours before it is sent off ; and when it happens, from unforeseen circumstances, that we are obliged to fish a little before the sailing of a packet, or sending to the packet, it is carefully packed in ice and stored in a cellar ; it has the reputation in some places of being the best handled fish going to any market in England.

The Witness is directed to withdraw.

Adjourned to Monday next, at One o'clock.

Die Lunæ, 25° Junii 1860.

LORDS PRESENT:

LORD STEWARD.
Earl CAWDOR.
Earl INNES.
Earl DUCIE.
Viscount HUTCHINSON.

Lord COLVILLE of Culross.
Lord POLWARTH.
Lord LOVAT.
Lord STANLEY of Alderley.

THE LORD STEWARD in the Chair.

COMMODORE HASTINGS RIGINALD YELVERTON, R.N., C.B.,
is called in, and examined :

Evidence on the
Salmon Fisheries
(Scotland).

Commodore
H. R. Yelverton,
R. N., C. B.

25th June 1860.

4042. *Chairman.*] I BELIEVE you are Comptroller General of the Coast Guard?
I am.

4043. You are probably aware that the coast guard in Ireland are employed in enforcing the provisions of the Fisheries Act?
Yes.

4044. In the event of its being thought desirable to introduce a similar provision into the fishery law of Scotland, would the coast guard in that country be available for that purpose?
Perfectly so.

4045. To what extent?
I am sorry to say that the force is very small; I have but 167 men on the east coast of Scotland available, from St. Abb's Head to Cromarty.

4046. Do you think, without interfering with their other duties, the coast guard might be employed for the enforcing of the provisions of any fishery law that Parliament might think fit to enact?
I should say certainly.

4047. Lord Stanley of Alderley.] What is the number of stations between St. Abb's Head and Cromarty?
We have got seven divisions (embracing 26 stations).

4048. Will you name the localities in which those stations are situated?
I have got Leith, Elie, Montrose, Aberdeen, Banff, Burgh Head, and Cromarty divisions.

4049. Are there any intermediate posts where a small portion of the coast guard is situated?
There are many intermediate posts; they are stations. The points I have named are the head-quarters of divisions.

4050. Are there no stations on the west coast of Scotland?
On the west of Scotland I have only got the Clyde and Stranraer.

4051. Is that station situated in the Clyde near Greenock?
Near Greenock, and the other in Wigtonshire.

4052. And there is no other station upon the west coast of Scotland?
No.

Commodore
H. R. Yelverton,
R. N., C.B.

25th June 1860.

4053. None in the islands of Scotland?

No.

4054. Lord *Lovat*.] Are not those stations 40 or 50 miles apart?

Yes. The divisions are 40 or 50; but the stations are from 10 to 15 miles apart.

4055. And some further?

Yes; I am sorry to say they are very scattered.

4056. Lord *Colville* of Culross.] Are there no small stations on the coast of Kincardineshire and Aberdeenshire?

Yes.

4057. Lord *Stanley* of Alderley.] Are you aware that your men afford great assistance in enforcing obedience to the laws relating to salmon fishing in Ireland?

Very great.

4058. Do you think it at all militates against the performance of their duty in taking care of the revenue?

Not the slightest.

4059. Have you found every disposition on the part of your men to render any such assistance as may be required?

At all times they have strict orders to do so; and I have brought a list in case the Committee should wish to frame any instructions to those officers.

4060. What are the instructions that you give your men in Ireland to render assistance in enforcing obedience to the laws relating to salmon fishing?

Merely to afford all assistance at every time that it does not interfere with the duties of the revenue; there are no defined orders.

4061. Under whose orders do they act; is it requisite that they should act under the orders of the officers in command of the stations, or do they act upon the requisition of any magistrate, or any person employed to enforce the law?

They act entirely under their own officers.

4062. Then application must be made to the commanding officer to allow his men to be employed for those purposes?

Yes.

4063. I think we have had evidence given before the Committee that the coast guard as a matter of course see to the taking up of the nets in close time, and to the enforcement of the open period upon the Sunday by taking up the leaders of the bag and stake nets; would they do that of their own accord without fresh instructions each time from their officers?

They would require an order in the first instance to do so, and they would afterwards require no fresh instruction.

4064. Earl *Cawdor*.] They would require merely a general order?

Yes, that would be quite sufficient.

4065. *Chairman*.] Do you find any difficulty in enforcing that provision to which the noble Lord has referred with reference to the weekly close time in Ireland?

None at all that I am aware of; we have not had any difficulty about it. I never heard of any.

4066. I suppose a certain discretion is left with the coast guard as to the state of the weather, when it might be difficult to go out to raise the leaders?

Yes, at all times.

4067. Lord *Colville* of Culross.] Is there any probability of any increase being made to the coast guard in Scotland?

I am afraid not at present.

4068. Lord *Stanley* of Alderley.] There is no present intention of increasing the number?

Yes, there is; but the regulations are so very binding, it is restricted to a certain class of men.

4069. Has

Commodore
H. R. Yelverton,
R. N., C. B.
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4069. Has it not been in contemplation recently to increase the number of the coast guard?

It has for a long time been in contemplation, but we cannot get the men, unfortunately; it is only a man who has been qualified by 10 years' good servitude in the navy that has a qualification, and they are men who have become very useful, and therefore the navy do not like to part with them. A man after that period of service has a right to go into the coast guard.

4070. When a ship is paid off, is there any restriction to the number of men allowed to go into the coast guard, when they have obtained the necessary qualification?

It is under one restriction, that he must have 10 years' good servitude before he is admitted into the coast guard.

4071. Are as many men who wish it allowed to enter the coast guard, or is there any restriction as to the number of men who are allowed to enter the coast guard?

No, there is no restriction; any man who has the necessary qualification is admitted immediately.

4072. Notwithstanding that there is no restriction, is there any failure as to the number of applications, when a ship is paid off, of men who wish to be admitted into the coast guard?

They have long-service pensions in view, and they are loath, after 10 years' servitude in the navy, to give up the prospect of that pension and go on shore.

4073. There is less disposition now than there was formerly to enter the coast guard?

Yes less; it would appear so.

4074. The inducements to remain in the service are much greater than on former occasions, therefore the inducement to go into the coast guard is less?

Yes.

4075. So that there is an insufficient number of men, who are paid off from a ship, disposed to go into the coast guard, and you never get the number that you would wish?

Nothing like the number I should wish.

4076. Lord Colville of Culross.] Do you mean in respect to Scotland?

I mean with respect to the whole of the coast guard.

4077. Lord Stanley of Alderley.] Are not there great numbers of men employed in the coast guard temporarily, who have not fulfilled the conditions of serving on board the Queen's ships?

We have 1,400 old revenue protectors, men who were in the coast guard in days of yore. They are very old men; they are dying off, or getting superannuated; some only have been in the navy; they are men appointed by the Treasury and Admiralty, when the coast guard was entirely under the Board of Customs.

4078. Was it formerly the practice to employ the coast guard temporarily, and for a season, men who had not been in the Queen's navy?

Yes, it was the practice to hire what they called "extra men," who did duty for a day or for a week, &c.

4079. Sometimes they might be employed for six months during the winter?

Yes; I believe it was so in those days.

4080. Are no men of that description now employed?

None.

4081. Chairman.] Were they men belonging to the respective neighbourhoods?

Yes, entirely; they had nothing to do with the navy or with the Custom House; they were respectable men in the neighbourhood.

4082. Lord Stanley of Alderley.] There must have been a great number of
(135. 12.) 3 B men

Commodore
H. R. Yelverton,
R. N., C. B.

25th June 1860.

men of that sort taken on the Essex coast, and on the Devonshire and Cornish coast, 15 or 20 years ago?

Yes; but not now.

4083. *Chairman.*] Is it part of the instructions to the coast guard in Ireland to proceed for penalties against persons infringing the fishery law.

Yes, certainly, at all times. I have had several cases.

4084. Lord *Colville* of Culross.] Do not the coast guard receive a large proportion of the fine themselves?

That is decided by the Board of Fisheries, and does not come under my department.

4085. *Chairman.*] It is left to their discretion to proceed or not against the persons who do not observe the Saturday slap, as it is called, having regard to the state of the weather and other circumstances?

Yes; but the officer would be grossly neglecting his duty if he did neglect to proceed against any person guilty of an infringement of the law.

4086. Lord *Stanley* of Alderley.] Are the Customs revenue cutters under you?

Yes.

4087.] Are there not several of them on the west coast of Scotland?

On the east coast I have only one, and on the west coast I have two. I have the "Victoria," with 26 men, on the east coast, and on the west coast the "Prince Albert," and a small vessel with 16 men, the "Harriett"; and a gun-boat on the east and west coast also.

4088. Where is the gun boat stationed on the west coast?

She cruises; the Clyde is her station or head-quarters.

4089. On the west coast in the Clyde?

Yes, in the Clyde.

4090. Are they used for exercising the volunteers?

Yes, chiefly; and in the protection of the fisheries also.

4091. Could the crews of the revenue cutters be at all employed in assisting in enforcing the laws relating to the fisheries?

Decidedly they might, I think.

4092. They are continually going from one part of the coast to the other?

Yes, they are always moving; the "Victoria" is a very large vessel.

4093. What is she?

She is a cutter of 120 tons.

4094. *Chairman.*] You do not find that the discharge of this duty of enforcing the fisheries laws in Ireland, produces any bad feeling towards the coast guard, on the part of the inhabitants?

None that I ever heard of; on the contrary, I think.

4095. Lord *Colville* of Culross.] Can you state the number of men employed in the coast guard service in Ireland?

It is very large compared with Scotland; 1,645 is the last return.

4096. Lord *Stanley* of Alderley.] Can you state how they are posted, as to the east and west coast of Ireland?

I cannot tell you exactly the stations at this moment.

4097. Are they all round the island?

All round the island.

4098. Lord *Lovat.*] How many coast guard are employed at one station?

Some twelve and some eight; the number varies.

4099. Lord *Stanley* of Alderley.] Is there much smuggling on the coast of Scotland now?

No.

4100. Is not tobacco brought in from Hamburgh and Holland?

We

We have had some tobacco brought in from England on the north-east coast of Ireland, which had been taken out of bond in London, as ships' stores, and landed in Ireland last year.

*Commodore
H. R. Yelberton,
R. N., C. B.*

4101. *Chairman.*] Is there any other information that you desire to give to the Committee?

25th June 1860.

None; but I am prepared to give any directions that your Lordships may please to desire to the officers in Scotland, to carry out the duties in the same way that they do in Ireland.

The Witness is directed to withdraw.

Ordered,

That this Committee be adjourned till Friday next, at One o'clock.

Die Veneris, 29^o Junii 1860.

LORDS PRESENT:

Duke of RICHMOND.
Lord STÉWARD.
Earl CAWDOR.
Earl INNES.

Viscount EVERSLEY.
Lord COLVILLE of Culross.
Lord LOVAT.
Lord STANLEY of Alderley.

THE LORD STEWARD in the Chair.

The Right Honourable JAMES MONCREIFF, Lord Advocate of Scotland, & Member of the House of Commons, is further examined : Evidence on the
Salmon Fisheries
(Scotland).

4102. *Chairman.*] HAVE you any observation to make upon your former evidence ?

The Right Hon.
James Moncreiff.

Yes. I was asked on a former occasion whether the jurisdiction of the Fishery Board extended beyond Scotland, and I said that it did not. My impression at that time was, from the constant practice of the Board, that they had no jurisdiction beyond the limits of Scotland, but I find that that was inaccurate in terms, because the statutes do give them jurisdiction on the north coasts of England and in the Isle of Man ; but ever since the bounty was abolished the jurisdiction has fallen into desuetude.

29th June 1860.

4103. Was not the decision in the case of Lord Kintore to the effect that the proprietor of an adjoining fishery had no right to proceed against the grantee of another fishery for fishing by any means that he thought fit to employ on the sea coast ?

I think that was so.

4104. Do you conceive that the Crown would now have the right to proceed against one of its own grantees for using means that the grantee considered advantageous to his own interest for the purpose of taking salmon ?

No. My impression is, that a grantee, having a grant of salmon fishing, unless he is limited by the express terms of his charter, may fish in any way that he finds most desirable in the seas, because the statutes do not extend to the seas.

4105. Do you apprehend that the statutes now apply to the estuaries of rivers ?

Yes, they extend to the estuaries of rivers, and to the portion of water which is described in the statute. It is not easy to put it in precise words, because it is now referred to a jury to say where the sea ends in each case and where the estuary begins ; it is a matter of fact to be determined under the special circumstances of the case.

4106. Lord Stanley of Alderley.] Do you think that the law is clear that it is illegal to fish by means of any fixed engines in any of the rivers or estuaries of Scotland, except in such cases as that of cruives, which may have been already granted by charter or exercised by long prescription ?

I think it is illegal to fish by any fixed machine that permanently impedes the fish. That those cruive dykes are legal there can be no question ; they are under specific regulations, but that they are legal cannot be doubted, and yairs and other matters mentioned in the statutes are legal so long as the statutory provisions are observed ; but stake nets or fixed machines where the sea ebbs and flows are absolutely prohibited.

(135. 13.)

3 B 3

4107. Do

The Right Hon.
J. Moncreiff.
29th June 1860.

4107. Do you think that that prohibition extends to all stake and bag nets, as well as to any new cruives or dykes which may be constructed?

Certainly, within the prohibited limit of the statutes.

4108. What would be your definition of estuaries in such cases, as they have not already been specifically assigned by charter?

That, as I have already said, is a matter which is left to a jury to determine; and I think I mentioned in my last examination that the last case which occurred, was a case in which Mr. Hogarth and Mr. Monro of Novar were the parties; and there the simple issue sent to the jury was, whether Mr. Monro of Novar had fished in places prohibited by the statute; there was nothing more specific sent to the jury. It was sent to the jury to say whether the particular places where the stake nets were placed were or were not in the definition of the statute; that was left to the jury as a matter of fact.

4109. If, in your opinion, such is the present state of the law in Scotland, would it be competent to any person to apply to the Court of Session for an order of sessions, to put down and abate the nuisance of any improperly erected fixed machine, for the purpose of catching salmon within those limits?

Provided that he had a title to try that question; but any one of the public could not try it. It would be necessary that he should have such a title or interest in the fishings which were affected by the illegal act as to give him a title to do so.

4110. Would it not be competent to the Crown, as being the only authority which has the right of catching salmon in Scotland, unless it is delegated to others to institute proceedings for the purpose of abating such a nuisance?

I would answer that question with some reserve. The Crown is the superior, no doubt, of every salmon fishing in Scotland, and has the right, if it is not granted out, but if the right of salmon fishing all along the course of a river has been granted out to private proprietors, I am not prepared to say that the Crown would, as the superior of the salmon fishing, be entitled to interfere; at least I am not aware that any case of that kind has ever occurred.

4111. If that is the case, would not it happen that there might be an infraction of the law which it was no person's duty or power to proceed to abate according to the provisions of the law?

The prosecutor must always be a person having a title, because he must be interested in the salmon fishing in the river, the estuary of which has been used for an illegal purpose.

4112. But there would be no right on the part of the public adverse to the interest of private fishing?

Apart from the private interest, there is practically no right in the public to interfere.

4113. Or would the Crown grant to any individual the right to question the exercise of this fishing if it were exercised by means of illegal engines?

It is right that I should say that under the old statutes this poaching in an estuary was made penal, and you might find an argument certainly in favour of the right of the Crown to interfere, and even to allow a private prosecutor to interfere. But the suggestion is novel to me so far as the practice goes. I am not aware that such a thing was ever done, at least not within recent times. These questions have always arisen with persons having an interest in the salmon fishing of a river.

4114. Would it be competent to any of the proprietors of the fishing in a river to institute proceedings against those who have established fixed engines lower down the river, which they might consider would injure their property and prevent the salmon from ascending their river?

If they had a right of salmon fishing, they would have a title to try such a question.

4115. Are you aware that, in certain Acts of James the 3d and James the 4th, there is a provision requiring that all persons possessing cruive dykes, or mill dams, should keep an open space in the centre, to allow a free passage for the fish up the river; are you aware of the existence of such a provision?

Yes, it is so; such a provision has existed as long as there has been any salmon law in Scotland.

4116. Do

4116. Do you consider that the right of securing the free access of the salmon has been got rid of by any subsequent Act of Parliament, or do you consider that the law still exists?

My impression is that it still exists, so far as I am aware.

4117. Earl *Cawdor*.] It sometimes happens that many Scotch Acts have fallen into desuetude, is that the case with this Act?

My impression is not so; I think that they still exist. I think that the provisions of all those Acts, except in so far as they have been repealed by Acts since, are substantially in force, and that has been the import of recent decisions.

4118. It has been said that at the time when the grants of cruives were principally made, fixed engines, such as stake nets upon the shore of the sea, were unknown; is that your opinion?

A reference has been given me to the following passage from Boethius, in regard to that matter: "Præter copiam tritici cæterorumque frumentorum, item nucum pomorumque omnium toto Scotorum agro nascentium non minor hic piscium atque in primis salmonum bis quam usquam alibi reperitur. Sed novus is piscandi mos est. In intimo maris sinu cratem longo tractu directam cæno inducunt, in angulis suis ternis quaternisque gyris involutam, adversus quam pisces adveniente mari delati in gyris illis sese implicant; unde nec facilis manente aquâ fit illis exitus; itaque mox abeunte oceano in sicco destituti advenientium manibus prædas sese exhibent." That passage certainly describes very nearly a stake net, even a modern stake net; but reading the statutes, I should have said that fixed engines in the estuaries were known during the whole period over which these statutes extend. They were of more or less rudeness, but still things in the nature of a fixed engine have existed during the whole course of those statutes.

4119. It was not, in point of fact, a modern invention?

A net fixed by stakes in the sea, I should think, was not a modern invention.

4120. Lord *Stanley of Alderley*.] In the Act to which I refer, chapter 6 of James the 3rd, 1477, it is required, "And they that has cruives in fresh waters that the gar keip the lawes anent the Saturdaies slap, and suffer them not to stand in forbidden time under the samin paine; and that ilk heck of the said cruives be three inch wide, as the auld statute requires made be King David, and that the mid streame be left free be the space of sex fute." And you are aware that there is a further provision to the same effect in chapter 16 of James the 4th, 1489, and which requires that, "And anente the cruives set in fresh waters that they stand not in forbidden time. And let the mid streame be always free be the space of five fute." Do you consider that these laws still remain in force, and have not been repealed?

My impression is, that they are still in force, and that has been the import of the recent decisions.

4121. Duke of *Richmond*.] Has not the Crown granted charters to individuals upon the sea coast, permitting them to have the right of fishing?

Yes; there are instances of those charters; they are not very numerous, but still there are a good many.

4122. The Crown has granted that permission to a great many of the sea coast fishers?

I should not say a great many; but there are a good many instances of the grant of sea coast fishing from the Crown.

4123. Do you not conceive that an individual who receives the permission of the Crown to take salmon on the sea coast would have a right to take salmon in any way which he thought best?

Except in so far as he is prohibited by the statutes.

4124. There is no statute prohibiting, except in close time, their doing whatever they thought fit?

No; but if it be meant to ask me whether legislation on the subject should not take place because it would be an interference with a private right, I should say that the whole course of salmon legislation has necessarily been an interference with private right; originally, of course, anybody was allowed to catch salmon as he best could.

4125. Are you aware that there is a net in Scotland, used in the rivers, which is called a stell net?

I am aware of that.

(135. 13.)

3 B 4

4126. Are

The Right Hon.
J. Moncreiff.

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The Right Hon.
J. Moncreiff.
29th June, 1860.

4126. Are you aware whether or not the use of the stell net was not granted by the Crown in many of the old charters?

I think it was; I think the expression "stell net" is found in the old charters, so far as my recollection serves me at present.

4127. Lord Colville of Culross.] Do you think that the duties of the present Fishery Board in Scotland might be extended, so as to give them jurisdiction and supervision over the salmon fishery?

I think they might. On my former examination that question was asked me, and I have given it some consideration since; and it appears to me that the great difficulty in enforcing these Acts arises from the natural disinclination of the proprietors to mix themselves up with a matter which creates odium and bad feeling in the neighbourhood, and it might be very desirable if there were some public officer whose duty it was to take notice of these matters; and it occurred to me that if Scotland were divided into four or five salmon districts, as is the case in Ireland, and superintended by the Fishery Board, so as to give them a public standing apart from the heritors, and whose duty it should be to conduct or authorise prosecutions for violations of the Act, it might be a not undesirable arrangement, and it would entail no material increase of the staff of the Fishery Board. I do not think that the Fishery Board will find any difficulty in managing any matters that would be confided to them under such an arrangement. I think if the proprietors in each river were formed into a confederation or corporation, and assessed themselves for the expenses of these prosecutions, leaving it to the public officers to conduct them, a very vigorous and effective system of river police might be organized. Whether the Fishery Board should have the power of making specific regulations for particular rivers is a matter which the Committee might consider; I think probably, under reasonable limitations, that power might be usefully exercised.

4128. Lord Stanley of Alderley.] According to the present law of Scotland, if any person is convicted of an offence against the game laws, or violating the law as to catching salmon, is it not obligatory upon the person prosecuting to maintain the person so convicted during the whole time that he is in prison?

Yes.

4129. Do you think it is expedient that such a law should be altered, and that the expense of maintaining a person so convicted should be defrayed by the county, or by such other mode as may be deemed expedient?

I should say not. I think it would not be desirable to do so; because I think that the limits between criminal offences proper and offences against restrictive laws, like the game laws, ought to be kept entire; and very great confusion would arise to the criminal administration if it were not so.

4130. In the case of an offence against the revenue laws, supposing a person was convicted of shooting game without a license, in that case would not the prisoner be maintained by the public?

That is a very doubtful matter. It was the subject of more than one case in the Court of Session, and I am not prepared to say that it is decided now; that is to say, whether the Act of Grace, which is the Act under which a civil prisoner is entitled to be maintained if he is incarcerated, does or does not extend to persons incarcerated for revenue offences. That is a subject of litigation which I do not think is decided. The last case went off on a point of form; therefore I am not in a condition to say to the Committee that, even in that case, a prisoner would be maintained by the public.

4131. If the case were against the revenue, would the Crown be liable to maintain the prisoner?

If it be of the nature of a civil offence—and a revenue offence is more of the nature of a civil than of a criminal offence—unless it is specially provided for otherwise by statute.

4132. Would not any public invasion of the right and power of the Crown in salmon be an invasion of a civil right?

It would not deprive a person the benefit of the Act of Grace, because it would not be a criminal offence in the proper sense of the term. But I am speaking of a question which has given rise to a great difference of opinion among Scotch lawyers.

4133. Chairman.

4133. *Chairman.*] Are you aware that by a Return furnished to this Committee of the rights belonging to the Crown along the shores of Scotland, which have been granted since the Union, it appears that upwards of 23 grants of that nature were made between the years 1735 and 1838?

Yes; I believe that is about the number. If I recollect rightly, in the case of Gammell *versus* the Crown, there was a great anxiety to collect those grants, and that though there were about that number, there were not nearly so many as you would have expected from the valuable nature of the property.

4134. Have you any further information to give to the Committee?

I do not think that I have anything to add to my evidence. The only point upon which I wished to make a correction was, with regard to the jurisdiction of the Fishery Board, which I have already done.

4135. Duke of *Richmond.*] Upon the subject of these rights, criminal and civil, supposing 10 men go out at night armed with spears, and with their faces black, and will carry on black fishing, notwithstanding the bailiffs try to prevent them, would that be held to be a civil or a criminal offence?

If they deformed a legal officer in the execution of his duty, that is a criminal offence. The mere going out with their faces blacked, and armed, I do not think falls under any criminal statute that I am aware of; if they did it for the purpose of poaching game, that falls under the Night Poaching Act, and it would be a criminal offence; but whether that principle should be extended to salmon poaching in that mode is another matter; but of course, if they came into collision with, or obstructed the legal officers in the discharge of their duty, that would be a criminal offence.

4136. Lord *Colville* of Culross.] Do you think that the Fishery Board in Scotland would be the proper tribunal to determine the estuaries of rivers?

I think, in the first instance, the suggestion of a Commission is a more desirable course than to refer it to the Fishery Board, who would not have the materials as at present constituted, and would certainly not be competent to do it; it would require some considerable engineering skill; but I think if the Commissioners had once reported, the Fishery Board would be quite competent to make any variation which circumstances might call for.

4137. Duke of *Richmond.*] Is it your opinion that the case of bodies of armed men going out with their faces blackened at night for the purpose of poaching salmon does not come under any statute that would enable you to prosecute them criminally?

I do not think that it does under the actual words of any statute. If they go out in a way which indicates a foregone intention to commit an act of violence, mobbing, and it might amount to rioting, and they could be indicted for it; but the mere fact that they go in that way for the purpose of taking salmon contrary to the salmon statutes, is not, I think, an indictable offence.

4138. Do not you think it desirable that there should be some very heavy penalty upon a body of men who go out armed and disguised for the purpose of committing an illegal act?

It might certainly be a question worthy of very serious consideration whether the principle of the Night Poaching Act might not be extended to lawless proceedings of that kind, if they infer the probability of dangerous collisions with the water bailiffs. I think it is well worthy of consideration at present whether that might not be done; but it would require to be shown that it was a frequent cause of danger, and that collisions often occurred in consequence, because it is not desirable to extend the number of criminal offences.

4139. Lord *Stanley* of Alderley.] Do you think that, in the case of any person who has a grant of fishing in a river, and has already a cruive in existence, he would have the power to erect any new cruive?

That would depend upon the nature of his grant. In the general case he would not.

4140. But are there any grants in which cruives are expressly named, or a particular cruive, or is not the particular spot where a cruive may be erected, indicated?

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Frequently an existing cruive dyke is made the subject of a specific grant ; but there are grants in which there is a general right of fishing with cruives or yairs. It is the more general form.

4141. Do you know of any case of a charter in which there is a general right of erecting cruives ?

I cannot at this moment say that I do ; I am only giving my impression. It is certain that if a cruive dyke has been specially granted, and that cruive dyke for 40 years has been used in a particular way, the heritor would not be entitled to alter it, so as to increase his own right, or decrease the right of his neighbours.

4142. You think that it would be competent to the other persons interested in the fishing of the river to object to the erecting of any fresh cruive dyke ?

They have a title to object. General grants of cruive fishing usually bear " according to use and wont," and the heritor cannot go beyond this.

4143. In the absence of any express grant or any charter for erecting cruive dykes in any portion of the river, you think it would be illegal and incompetent for any person to erect such dykes ?

I think so. Where a general right of erecting cruives has been granted, it will only be allowed to be used to the extent of prescriptive use, and a general grant will be restricted by prescriptive use ; therefore, if a heritor has used cruive dykes in a particular way for 40 years, he would not be allowed to extend that use beyond.

4144. So that, practically, it would not be competent for him to erect any fresh dykes ?

I think not.

4145. *Chairman.*] Would you consider this to be a correct statement of the law, " cruives and yairs " (a yair being a sort of fish weir) " are legal from the source of a river down to the point where the flow and ebb of the tide begins, provided the person using such an engine has an express grant from the Crown of the privilege of fishing in that manner, and observes the regulations of the statutes as to cruives and yairs, the principles of which are, that they shall be kept open from Saturday till Monday, and that the hecks or bars of the cruive boxes shall not be less than three inches apart " ?

I have no doubt it is.

4146. Lord *Stanley* of Alderley.] That must be qualified, because " in that manner," according to you, would mean, " at one particular dyke," and not " any cruive dyke " ?

You must take the grant of fishing " in that manner," along with the possession of it. It is not a specific grant of a cruive that limits the proprietor ; it is the mode in which he has used that general grant. If he has a specific grant, that is a clear case ; but if he has a general grant, then the possession constitutes the extent of it. I think that statement of the law is quite correct, that these cruives are nearly all legal if the person using the engine has an express grant, and observes the regulations. I might certainly add to that, that in this, as in all other kinds of real property, the possession construes the grant, if the grant be general.

4147. Would you not draw a distinction between what has just been read and this paragraph, which states that " cruives, yairs, and all fixed engines, are illegal in a river from the point where the flow and ebb of the tide begins, down to the mouth of the river ; " would you not draw a distinction between the law as to the erection of cruives between the flow of the tide and the sea, and the erection of cruives in the upper part of the river where there is no flow of the tide ?

There is no doubt about it, that cruives and fixed engines here are entirely illegal.

4148. *Chairman.*] Will you also inform the Committee whether the statement in this paragraph is correct, " that cruives, yairs, and all fixed engines, are illegal in a river from the point where the flow and ebb of the tide begins, down to the mouth of the river " ?

Perhaps it should be " down to the sea," instead of down to the mouth of the

the river; that limit might either be the seaward end or the landward end of the mouth.

4149. Does this third paragraph contain, in your opinion, an accurate statement of the law, "that the statutes do not make fixed nets illegal on the sea coast, or, at all events, that a person having a grant of salmon fishings on the sea coast, cannot be interdicted under the statutes by another proprietor of salmon fishings from using such nets"?

I think that that may be held to be substantially a correct statement of the law. I do not say that this has been absolutely so decided, because the case of Lord Kintore rather waived that in some respects, but I have no doubt that that is the state of the law, and that effect would be given to that principle in any question that arose. The two questions that arise are, first, whether the Crown could interfere, as the grantor of the right, to make the fixed nets illegal. The other question would be, whether an adjoining or a river proprietor, has a title to interdict, supposing the Crown could interdict. I think the distinction is rightly made between those two cases; I think that the statement of the law in regard to both of them is correct.

4150. I think you have already stated that you thought the Crown could not interfere to restrict the grantee of fishings on the sea coast from using such nets if he thinks fit?

I think not, because I do not think that the statute extends to the sea. As long as he is not restricted by the grant, he can fish in any way he pleases. That question is not decided by Lord Lyndhurst in his opinion in the case of Lord Kintore, but I think that the Crown would not be able to support an interdict against their own grantee from fishing with bag nets.

4151. Lord *Stanley of Alderley*.] That is to say, where the Crown has already granted permission, it would not be competent to prohibit what has been already granted?

It would not be competent to the Crown to prohibit a particular mode of using a general privilege which has been granted. Perhaps I might explain, that the only doubt that arises with regard to that is, whether the statutes extend to the sea coast, because if they do not extend to the sea coast, it is quite clear that the Crown could not interfere with the grantee in any way. I think the general opinion is, that it is quite certain that the statutes do not extend to the sea coast.

The Witness is directed to withdraw.

The Duke of RICHMOND, examined.

4152. *Chairman*.] HAS your Grace a return of the number of salmon grilses and trouts taken in the River Spey from the year 1851 to the year 1859, with which you can furnish the Committee?

I hold in my hand a return of the number of salmon, grilses, and trouts, caught in the River Spey in the year 1851, and from that period down to the end of 1859, which is the whole time during which I have had the fishing in my own hands.

The same is delivered in, and is as follows :

DUKE of RICHMOND'S Fishings in Spey, N. B.

YEARS.	SALMON.	GRILSE.	TROUTS.	TOTAL.
1851 - - - - -	6,515	33,285	8,660	48,460
1852 - - - - -	10,980	46,041	8,549	65,570
1853 - - - - -	15,772	58,166	16,675	90,613
1854 - - - - -	29,780	36,148	16,025	81,953
1855 - - - - -	13,194	48,740	9,660	71,594
1856 - - - - -	14,103	27,628	8,118	49,749
1857 - - - - -	13,466	54,949	31,473	99,888
1858 - - - - -	30,840	35,409	15,313	81,562
1859 - - - - -	23,608	17,263	5,853	46,724

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J. Moncreiff.

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The Duke of
Richmond.

The Right Hon.
Lord Colville.

The Lord COLVILLE, of Culross, examined.

29th June 1860.

4153. *Chairman.*] HAVE you any statement which you wish to put in, and which you think will be useful to the Committee?

Yes; I wish to put in an explanatory statement which I have received from Sir John Stewart Richardson's agent, with respect to the compensation that has been paid to him for the damage done to his fisheries by the improvement of the Tay navigation, as stated in Captain Maitland Dougall's evidence.

(The same is delivered in.)

[Adjourned.]

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A P P E N D I X.

APPENDIX A.

Appendix A.

JUDGMENT of the HOUSE of LORDS in the Appeal GAMMELL ET AL. v. HER MAJESTY'S COMMISSIONERS of WOODS, &c., and the LORD ADVOCATE for SCOTLAND.

House of Lords,
Monday, 28 March 1859.

GAMMELL ET AL. v. HER MAJESTY'S COMMISSIONERS of WOODS, &c., and the LORD
ADVOCATE for SCOTLAND.

JUDGMENT.

The Lord Chancellor.—My Lords, this is an appeal against certain Interlocutors pronounced in an action of declarator raised at the instance of the Commissioners of Woods and Forests and the Lord Advocate on behalf of Her Majesty, against the Appellants, for the purpose of asserting the right of the Crown to the salmon fishings in the sea opposite to the Appellant Ernest Gammell's property of Portlethen, in the county of Kincardine.

The summons sets forth that "all the salmon fishings around the coast of Scotland and in the navigable estuaries, bays, and rivers thereof, so far as the same have not been granted to any of our subjects by charters or otherwise, belong to us *jure coronæ*, and form part of the hereditary revenues of our Crown in Scotland. That in particular the salmon fishings *ex adverso* of the estate of Portlethen in the county of Kincardine foresaid, belong to us *jure coronæ*, and are now under the management of the said Commissioners of Woods, Forests, Land Revenues, Works, and Buildings. That the Defender, Ernest Gammell, is proprietor of the estate of Portlethen. That the charters and other titles flowing from us and our royal predecessors in favour of the said Ernest Gammell or his authors contain no grant of salmon fishings, and he has no right or title to salmon fishings, *ex adverso* of the said estate of Portlethen, or in any part of the sea coast adjoining thereto;" and the summons concludes—"Therefore it ought and should be found and declared, by decree of the Lords of our Council and Session, that the salmon fishings around the sea coast of Scotland belong exclusively to us, and our royal successors, and form part of the hereditary revenues of the Crown in Scotland, so far as the said salmon fishings have not been expressly granted to any of our subjects, or vassals, by charters, or otherwise. And it ought and should be found and declared by decree foresaid, that the salmon fishings opposite to the said lands and estate of Portlethen, in the county of Kincardine, belong exclusively to us and our royal successors, and that the Defender, Ernest Gammell, the proprietor of the said estate of Portlethen, and the other Defenders as tenants or claiming right under him, have no right or title to fish for salmon, grilse, or salmon-trout, *ex adverso* of the said lands and estate of Portlethen, or in any part of the sea coast adjoining, by means of stake-nets or bag-nets, or by net and coble, or in any other manner or way."

The Defenders pleaded defences, only two of which it will be necessary to call to your Lordships' attention. The first is—"The Defender, Mr. Gammell, being the proprietor of lands erected into a barony, the right of salmon fishing in the adjoining water is attached thereto. Secondly, the right of salmon fishing in the sea does not belong to the Crown as part of its hereditary revenue."

The Lord Ordinary was prepared to pronounce a decision on the first defence, which alleged that Mr. Gammell had a right to salmon fishings under his grant of the barony of Portlethen, but both parties having desired that the consideration of that defence should be reserved until a judgment should be pronounced on the other defences, which assert that the Crown has no right whatever to the salmon fishings in question in the sea, *ex adverso* of this barony, he reserved the consideration of the first defence, and ordered cases upon which he afterwards pronounced his Interlocutor; and "decerns and declares in terms of the first conclusion of the summons of declarator." That, as your Lordships will perceive, decided

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that the salmon fishings around the sea coast of Scotland belong exclusively to the Crown, and form part of the hereditary revenues of the Crown in Scotland.

Upon this Interlocutor the Defenders presented a reclaiming note to the Second Division of the Court of Session. Their Lordships, upon the case coming on, considering the question to be one of great importance and difficulty, appointed it to be heard by the whole Court, and they allowed the Pursuers to lodge pleas in law, and the Defenders to give in additional pleas, which was accordingly done.

The first and second pleas in law for the Pursuers are the only ones which need be mentioned. The first is—"The right of salmon fishings in the sea around the coast of Scotland belongs exclusively to the Crown, and forms part of its hereditary revenues." The second is—"The right of salmon fishings in the sea around the coast of Scotland being *inter regalia*, the Crown alone is entitled to grant a right to such fishings by charters or otherwise; and without a grant from the Crown no person can lawfully exercise such right."

The additional pleas in law for the Defenders were,—“First, the right of fishing in the British seas for salmon or other fish, is not a right vested in the Crown as part of its hereditary revenue, and cannot be appropriated as such by the Pursuers. Secondly, supposing the right of fishings in the sea to be *inter regalia*, it is merely so vested in the Crown for the purpose of regulation and of protection to the public or subjects of the realm, who are by law entitled to avail themselves of the public right of fishing, and this right cannot be converted or turned into a royal monopoly or into part of the hereditary revenue of the Crown. Thirdly, the *regalia* are held by the Crown as trustee for the public, for the use, benefit, and protection of the subjects of the realm in their enjoyment thereof. They form no part of the hereditary revenue, and the terms are neither synonymous nor convertible.”

The case having been argued before the whole Court, all the consulted Judges, with the exception of the Lord Justice Clerk, were of opinion to adhere to the Interlocutor of the Lord Ordinary; and the Second Division pronounced this Interlocutor:—"The Lords having resumed consideration of the reclaiming note for Ernest Gammell and others against Lord Murray's Interlocutor with additional pleas for the parties. In respect of the opinions of the majority of the whole Judges adhere to the said Interlocutor reclaimed against and repel the additional pleas for the Defenders given in since the date of that Interlocutor, and remit to the Lord Ordinary to proceed further in the cause."

The case has been brought by appeal from these Interlocutors to your Lordships' House; and you are called upon to decide the important question whether the salmon fishings around the sea coast of Scotland belong exclusively to the Crown, and form part of its hereditary revenues.

Before entering upon the consideration of this question, it may be necessary, in consequence of a part of the argument of the counsel for the Appellant, to endeavour to ascertain as accurately as possible the limits within which this right of the Crown is alleged to exist; because it was strongly urged that the sea being common to all, there could be no appropriation of it except in that limited portion which adjoins the shore, and that the right claimed was unreasonable, as it would embrace any fishing whatever in the deep sea at an indefinite distance from the coast. But it appears to me that this is a misapprehension of the claim made by the Crown, and that the limits are not so undefined as alleged, although the right, from its nature, must be to a certain extent indefinite. Your Lordships will observe that the right which the Crown asserts in the second conclusion of the declarator, is to the exclusive salmon fishings opposite to the lands of Portlethen, and that the Defenders "have no right or title to fish for salmon, grilse, or salmon-trout, *ex adverso* of the said lands and estate of Portlethen, or in any part of the sea coast adjoining, by means of stake-nets, or bag-nets, or by net and coble, or in any other manner or way;" and the conclusion for interdict is, that the Defenders shall "be prohibited, interdicted, and discharged from fishing for salmon, grilse, or salmon-trout, *ex adverso* of the said lands and estate, or in any part of the sea coast adjoining thereto, and from erecting or using stake-nets, bag-nets, net and coble, or any other engines or apparatus for catching salmon, grilse, or salmon-trout, within any part of the said lands."

It is unnecessary for the purposes of this case to say more than that I agree with the consulted judges in their opinion, "That the right of fishing in dispute, the right which is asserted on the part of the Crown, and denied to the Defenders in the summons, is the right of fishing in the open sea, when by that term is meant the sea on an open coast, as distinguished from estuaries and inlets; but still by stake-nets, bag-nets, and by net and coble, and other similar modes, all of which it is a matter of notoriety, imply either the connection of the apparatus with the coast, as in the case of stake-nets and bag-nets, or the use and possession of the coast, as in the case of net and coble. In short, the modes of fishing on the coast, which it is the object of the summons to deny to the Defenders, and to claim for the Crown, are those modes of fishing in which the use and possession of the coast is essential to the operation."

To these observations it may be added, that the right which is asserted is not a right of fishing for salmon, but a right to "the salmon fishings around the sea coast of Scotland,"

land," which appears to be a common and well understood description of the subject of claim.

The question then is to be determined upon the right thus limited and explained, and it must be decided entirely by reference to the law of Scotland. The right of the Crown is rested solely upon that law, and it cannot be met by arguments derived from the works of foreign jurists, or from the municipal laws of other countries.

There can be little doubt that salmon fishings at an early period of the history of Scotland were regarded as possessing a peculiar value over other fishings, and were distinguished from them in a remarkable manner. They were classed *inter regalia*. They were only capable of belonging to a subject by an express grant from the Crown, or by a grant of fishings generally, followed by such an user of salmon fishing as proved that it was intended to be comprehended within the general terms of the grant.

It will be necessary only to cite one or two of the best institutional writers on the subject. Craig, in his *Jus. Feudale*, book 1, dieg. 16, section 38, says, "*Salmonum piscatio apud nos inter regalia numeratur, neque cuiquam hodie concessa videtur nisi specialis ejus in concessione mentio fiat.*" And in another passage of the same work, book 2, dieg. 8, section 15, after stating that Bartolus distinguished rights of fishing into two kinds, the one derived from the Prince or Sovereign, the other acquired by an individual by prescription, he proceeds thus—"Nos etiam duplicem piscationem facimus sed alio modo distinctam, unam salmonum, alteram communium sive alborum (ut loqui solemus) piscium. Salmonum piscatio in feudi dispositione generali non venit nisi exprimatur, neque sufficit generalis illa dispositio (cum piscationibus) nam salmones non comprehendit. Et hæc est communis opinio salmonum piscationem inter regalia numerari."

And to the same effect precisely are the passages which were cited in argument from Stair, from Erskine, and from Bell.

Indeed this hardly seems to be denied on the part of the Appellants; for in their case, at page 25, after adverting to the assertion, that the right of the Crown to make grants of salmon fishings in navigable rivers, or in the sea at their mouths, is admitted, they say, "The Defenders are not here to contest the right of the Crown to make such grants in navigable rivers. These are founded on immemorial usage, and are supported by authority and decision." And in their printed reasons for reversing the interlocutors submitted to the House, they say, at page 54, "The Appellants do not dispute that the power of making grants of salmon fishings in rivers, and in those estuaries of the sea which are at the mouths of rivers, are *inter regalia*," but they deny the right to exist in the sea adjoining an open coast.

It seems rather difficult to understand the principle upon which this distinction is supposed to rest. If it could have been shown that the right has invariably been exercised in this restricted manner, it might have amounted to evidence which would have prevented its being further extended; but it will presently be seen that the grants which have been made from time to time by the Crown, are not of this limited character.

If I have rightly apprehended the argument of the counsel for the Appellants, it is this: They say the law, as to the right to the sea shore, is different in Scotland from that of England; that in Scotland "the shore is not, as in England, held to be the property reserved to the Sovereign, but presumed to be granted as part and pertinent of the adjacent land under the burden of the Crown's rights as trustee for the public uses." (Bell's Principles, section 642.) That the right to the salmon fishings, therefore, cannot be connected with any right in the shore, and that in the open sea they are incapable of becoming the subject of feudal property.

I do not think it very important in this case to ascertain what right the Crown possesses in the sea shore in Scotland. It may be observed, however, that Lord Campbell, in the case of *Smith v. The Earl of Stair* and others (6 Bell's Appeal Cases, page 500), says, "Notwithstanding some loose *dicta* to the contrary, there can be no doubt that, by the law of Scotland, as by the law of England, the soil of the sea shore is presumed to belong to the Crown by virtue of the prerogative, although it may have been alienated subject to any easements which the public may have over it." But assuming that the sea shore, which originally belonged to the King, like all the other property in the kingdom, though not granted expressly, yet if not excepted, passed to the owner of the adjoining land, or, in the absence of proof to the contrary, must be presumed to belong to him, this would determine nothing as to the right to the salmon fishings upon the coast; because the right is not at all connected with property in lands, as appears from Erskine, book 2, title 6, section 15, where he says, "As this right, in consequence of its being *inter regalia*, remains with the Sovereign after he is divested of the property of the lands on both sides of the river, the Crown may make a grant of the salmon fishing in a river or any part thereof, in favour of one who has no lands on either side. The whole estate of such grantee consists in the fishing, and this right entitles him to draw his nets on the banks of the adjacent grounds without the proprietor's consent, as a pertinent of the fishing." And even admitting that the sea shore must be presumed to belong to the Appellant, there is the strongest proof that the grant to him was not intended to include the salmon fishings opposite his land, because in the charter from the Crown of the lands and barony of Portlethen, they are described as,

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"All and whole, &c., with the sea-port, haven, and harbour of Portlethen, and whole tolls, duties, customs, and anchorages pertaining and belonging thereto, with the white fishings in the sea adjacent to the said lands;" the expression of "white fishings," according to the well known rule, being an exclusion of all others.

As little ground is there for the Appellant's assertion that "fishings in the open sea cannot be feudalized or become the subject of a feudal grant." This is directly contrary to the authority of Craig, who, in his *Jus. Feudale*, book 1, dig. 15, sect. 15, says, "*Itaque piscationes mares proximi et insulæ et portus ut locari sic in feudum dari possunt.*" And sect. 17, "*Nam pisces in mari aut in flumine publico licet nullius in bonis sint piscationum tamen feudum recte fit.*"

But the Appellants endeavour to get over the difficulty of distinguishing between rivers and estuaries and the sea upon an open shore, by attributing the origin of the right acquired by the Crown in salmon fishings to usurpation, which they say has never extended to the open sea, but has been confined to rivers and estuaries. And the Respondents having produced a great number of retours showing grants of salmon fishings prior to the Union, the Appellants try to disable them, by alleging that they are all of them in terms applicable to rivers and estuaries, being either grants of fishings, "*tam in dulcibus quam in salis aquis,*" which they say necessarily imports a tidal river or an estuary, or in waters by a specific name, as "*Aqua de Done,*" or "*Aqua de Doverane,*" which cannot apply to the undefined open sea.

It is impossible to form a correct judgment of these retours without a map or plan of the properties to which they relate, but without this assistance there are some of them which clearly appear not to be as confined as the Appellants contend. For instance, the first of the returns in Aberdeen, "*Villa et terris de Carnbulge cum piscatione super mare salsum infra baroniam de Phillorthe,*" the one in Kincardine, to Mr. Arthur Straiton—"Salmon fishing and teynd thereof in the sea within the parochin of Eglesgreig," which we know from a case which came to this House, means the open sea, and one in Nairn, to Simon Fraissisor—"Salmon fishing and uther fishings of the yair of Aleak Callit Corrynagold and uther fishings as well in the sea as in the Water of Cruan lying of auld within the thayndome of Calder and now united into the barronie of Kinkell Froyser."

But the grants since the Union are many of them not capable of being referred to rivers or estuaries, because they are grants of fishings in the sea adjacent to lands "upon the sea coast," or "upon the sea shore," or "along the sea coasts," or "lying along the sea coast;" and with respect to the modern Crown Charters, on page 13 of the Respondents' Appendix, some of them (as was pointed out in the course of the argument) can only be understood as applying to the sea shore upon an open coast, such as the one to Mr. Anderson, dated 21st December 1840, at page 18—"Totas et integras terras et baroniam de Kinnaber et cum Salmonum piscariis aliisque piscariis super aqua de Northesk, &c., ac etiam cum salmonum piscariis aliisque piscariis in littore maris inter dictam aquam de Northesk et aquam de Southesk." Now these were either original charters or charters by progress, and either way they show the exercise of the right to grant these salmon fishings in the sea, either as charters of *novo dumus*, or as repetitions of grants in former charters.

In addition to these grants, several authorities were cited on behalf of the Crown to show that the right now claimed had been repeatedly recognised. All of these are disposed of by the Lord Justice Clerk in a summary manner. He says, "None of the cases seem to me to afford any direct authority for the pleas of the Crown. In most of the cases the interest of both parties was to admit that there might be a right of salmon fishings in what is called in these cases the sea, but in almost all, the fishings were in estuaries, or on sands stretching from the mouths of the estuaries." I think the learned Judge has put this a little too strongly. But admitting that in most of the cases the question of the Crown's right was not contested, yet there is not one of them in which the slightest hint was given that the right did not exist.

Nor is the absence of any denial of the right to be accounted for in the manner suggested by the Lord Justice Clerk: in the case of the Earl of Kintore v. Forbes, for instance, where it was clearly the interest of the Pursuers to dispute the right of the Crown to grant fishings in the sea properly so called. There Forbes and others were proprietors of estates, with rights of salmon fishings on the shores of the German Ocean to the north of the River Don. Lord Kintore and others were proprietors of salmon fishings in the river, and they raised an action, founded on various statutes, to have it declared that Forbes and the others were not entitled to use stake-nets or similar machinery within the salt water that ebbs and flows, and upon the sand and the schaulds adjacent. The Court of Session assoilized the Defenders, and their judgment was affirmed by this House, on the ground that the stake-nets and machinery were erected and placed in the sea, and not in any river or estuary. Lord Lyndhurst, in advising the House, said, "It is said that the proprietors of these fisheries on the sea coast have no right, by the terms of their grant, to fish in this manner; that they are entitled only to fish with what is called a net and coble, and that having taken upon themselves to fish in a different mode, the proprietors of the fisheries on the River Don have a right to complain of it, and on that ground to sustain the suit. My Lords, I apprehend that is quite a mistake. These persons became proprietors of fisheries on the coast originally by grant from the Crown, and if their grants are so limited that in point

point of law (upon which I do not wish at present to pronounce any opinion) they are not entitled to fish in the manner described, viz., by the use of stake-nets, that is a question between them and the Crown."

Now in this case it would clearly have been the interest of the Pursuers to have disputed the Crown's right to grant the fishings to the Defendants, as that grant was the protection to their Acts. If they had possessed no grant at all, they would have been here wrongdoers, and by intercepting the entrance of the salmon into the River Don, they would have been committing an injury to the fishings there, without any justification for which an action might have been raised against them.

But in Straiton's case the Crown grant was brought directly into question, and I agree with the consulted Judges, that this case appears to be perfectly conclusive upon the point of the Crown's right to grant fishings in the sea. The case is very clearly explained in their opinion, and they expressly say that the only ground of Straiton of Kirkside's right was a grant of fishing from the Crown *in mari*, which *there* was open sea, there being no estuary. The case was confessedly a difficult one. In the altered course of the river it became necessary to adjust the respective rights of Fullerton of Kinnaber, who was entitled to the river fishery, and Straiton of Kirkside, who was entitled to the sea; but if Straiton of Kirkside's grant of fishing in the sea could not be sustained, it was an easy way of solving the whole difficulty, as Fullerton would have been entitled to his river fishing, whatever was the state of the tide, and Straiton would have had no right at all which required to be provided for.

It seems to me, therefore, to be clear that the right of the Crown is established to the full extent claimed in the conclusion of the summons of declarator.

It only remains to be considered whether this right belongs to the Crown merely as an attribute of its sovereignty and as a trustee for the public, or whether it is to be regarded as a *patrimonium*, and therefore as a part of its hereditary revenues. I do not think that your Lordships will entertain much doubt upon this point; Erskine, in book 2, title 6, section 13, says, "No right in lands which is by our feudal customs appropriated to the Sovereign, and therefore goes by the name of *regale*, is presumed to be conveyed by the charter unless it be expressed." He then explains the *regalia*, which he divides into *majora et minora*, and then proceeds, "But the *regalia* now to be explained are truly parts or pertinents of land, and as such would naturally go to the vassal by his charter, if they had not been by our feudal customs appropriated to the Sovereign, and so understood to be excepted from the grant." He then enumerates these *regalia*, and amongst them includes salmon fishings, which, he says, is also a "*jus regale*," and therefore is not carried by a charter without an express clause. Now, as the Crown may either retain this subject itself, or grant it to individuals, it cannot possibly be regarded as amongst the *regalia* which are held for the benefit of the public. All the passages from the writers already quoted as to the effect of grants of salmon fishing, or of grants *cum piscationibus*, support the right of property in the Crown. If the right were common to all, it could not be appropriated, and if the Crown held it for the public, the public could not be excluded by a grant to any of them. But the Statute of 7 & 8 Victoria, chapter 95, recognises the legality of an individual right in a salmon-fishing in the sea, by prohibiting any person not having a legal right or permission from the proprietors of the salmon fishings to take, amongst other places, from any shore of the sea or in or upon any part of the sea, within one mile of low-water mark in Scotland, any salmon under a penalty. No person could have become the proprietor of a salmon fishing in Scotland except by grant from the Crown, and therefore the Legislature has expressly recognised the validity of these grants. But as the Crown may grant these fishings for the benefit of individuals, so it may retain them in its own hands, and it seems difficult to understand how they should become property when granted away, but possess a totally different character while belonging to the Crown.

It is clear, therefore, that the salmon fishings in Scotland are the property of the Crown, and that the Commissioners of Woods and Forests are the proper parties to pursue on behalf of Her Majesty. Upon the whole case the claim of the Crown appears to be satisfactorily established, and I advise your Lordships to affirm the Interlocutors, and I submit, my Lords, without costs.

Lord Cranworth.—My Lords, my noble and learned friend has gone so fully into this case that, concurring as I do with him in the result, I do not think it necessary, and I do not think it would be proper for me to trouble your Lordships with any detailed observations upon the case. I confess that both upon the recent argument and upon that which took place some years ago, I have entertained some considerable doubt, arising from the indefinite nature of the claim, and the great difficulty, if not impossibility, of defining to what extent the claim would go with respect to sea fishings. But upon the whole, considering particularly the almost unanimous opinion of the Court below, and finding that the doubts which I have entertained are not participated in by others of your Lordships who have heard this case, I dare say those doubts are unfounded; and I think an observation that was made is not unentitled to considerable weight, namely, that if this doubt were well founded, an exactly similar doubt might be raised as to the prerogative right of the Crown—in England at least—to the bed of the sea, because that is undefined; yet nobody doubts

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that such a right exists. Then taking into account what has been pointed out by my noble and learned friend, that what is here claimed is the fishings around the coast, and that it is matter of notoriety that the fishings require for some purpose the use of the coast, at least according to modern science, either by stake-nets or by drawing the nets to the shore, or by drying the nets upon the shore, or in some other way; I think it is very likely that that may be a sufficient answer to that doubt. At all events, I concur with my noble and learned friend in thinking that these Interlocutors ought to be affirmed.

Lord Wensleydale.—My Lords, my noble and learned friend communicated to me the opinion that he was about to give to the House, and I entirely concur in every part of it, and I think it unnecessary to add anything to it except that, perhaps, besides the limits he has stated of the fishing being connected with the coast, it may be worth while to observe that it would be hardly possible to extend it seaward beyond the distance of three miles, which, by the acknowledged law of nations, belongs to the coast of the country, that which is under the dominion of the country by being within cannon range, and so capable of being kept in perpetual possession. It is very true that Lord Coke says, that the right to jetson and flotson, which is part of the prerogative of the Crown, extends over all the narrow seas. But I apprehend it is not necessary to go so far as that, but that it is sufficient to say that, subject to the qualification which my noble and learned friend has explained, it may be perfectly true that the right is possessed within the three miles of sea over which the jurisdiction both in Scotland and in England extends.

Lord Kingsdown.—My Lords, I have also had an opportunity of seeing the opinion which has been delivered by the Lord Chancellor, before it was pronounced, and I entirely concur in it.

[*Interlocutors affirmed.*]

APPENDIX B.

REPORT by *James Leslie*, c. e., Edinburgh, and *John Shaw*, Drumlanrig, to the Associated Heritors of the River Doon, on the SALMON FISHERIES and MILL POWER of that River, 1855.

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EXCERPT from the Minutes of a Meeting of the Standing Committee of the Associated Heritors of Doon, on 2d January 1855.

MR. DYKES, as Convener of the Committee appointed on 3d October last, for the examination of the dam-dykes, reported that it was the opinion of the Committee that Mr. Leslie, c. e., of Edinburgh, should be appointed to examine and report on the state of the sluices, lades, hecks, dam-dykes, and other modes of withdrawing water from the river, or raising obstruction in its bed, from Loch Doon to the sea, with reference to the existing mills and mill powers, and other public works on the river, and to the salmon fisheries in the river and at its mouth. The meeting adopted this report, and authorise the appointment to be made, reserving power to the Associated Heritors to adopt the report or not, as they shall see fit.

The Chairman proposed that Mr. Shaw, of Drumlanrig, be appointed to report along with Mr. Leslie, which was also agreed to by the meeting.

HAVING examined, under the above remit, the River Doon, from the outlet of Loch Doon down to the sea, and all the dam-dykes across the river, with their lades, sluices, &c., and the whole subject of the fisheries in the river and at its mouth, and in the adjacent bay and sea coast, and the mill power in the river, we now beg to state our opinion as to the measures that are necessary to be taken to enable the salmon to ascend the river with facility, and which may be executed without any diminution of the existing mill power at the different mills.

We shall, in this the first section of our report, endeavour to lay down some general principles, and point out certain measures to be adopted as applicable to the whole river; and shall afterwards, in a second section, seek to apply them to the individual cases of the various dam-dykes and lades.

1. We hold it to be essential that the dam-dykes should be perfectly, or as nearly as may be, water-tight; because, what water passes through them, while it is lost to the mills, does not at all aid the fish in ascending and descending these dykes.

2. We see no reason for insisting on the dykes being altered and placed at right angles or nearly so, across the river, although they may be the cheapest to build, and the cheapest to keep up afterwards in that state; because, without being so constructed, the run of the water where there is an overflow may, by means of a slap of suitable form and dimensions, and judiciously placed, be confined to one narrow stream as readily as it could be with a dyke no longer than the breadth of the river, while the long oblique dyke has the advantage over the short one straight across, of not causing the river above it to rise so high in floods, and so it lessens the risk of inundating the adjoining low lands. In the oblique dykes, however, the intake or head of the lades ought to be removed from the apex of the angle, some feet horizontally up the river bank, in order to diminish the tendency of these oblique dykes to guide the descending fish into the head of the lade.

3. We are of opinion that there is no dyke at present across the Doon so high as not to be capable of being surmounted by the salmon, whenever there is a sufficient body of water running over it; and, except in extraordinarily dry weather, we think that when the whole spare water of the river is running over, salmon could ascend every one of these dykes, provided a proper slap were formed and maintained in it, and the water concentrated into the slap. This might be done without injury to the existing mill power; and the leading current in the river being then in the line of the slap, would guide both the ascending and the descending fish in a safe and proper direction.

4. The salmon surmount a dam either by a vertical leap, or by a continuous run up its face.

For the vertical leap it is necessary to have a deep pool below to leap from.

For the run it is necessary that the inclination should be tolerably regular and continuous, without any abrupt breaks in it. There must be no vertical step at the bottom, and no vertical beam or plank on the top of the dyke, if the fish are to ascend by a run up an inclined plane. Where practicable, a run should be preferred, and the inclination should be not steeper than 1 in 6; but when the perpendicular fall exceeds $2\frac{1}{2}$ feet, the inclination ought to be not steeper than 1 in 8.

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5. We consider it essential for the passage upwards of the salmon that the whole water should be sent down the river whenever the mills are not going; that the lades, after being provided with proper head sluices, should be made water-tight, and that no water should be taken into them at the head sluice, excepting what is actually required for the supply of the wheel.

To effect this would be no sacrifice whatever on the part of the millers beyond the trouble of opening and shutting the head sluices; though it may be a question whether it would be advisable to insist on this being done at meal hours, as possibly the most of the fish ascending beyond the issue of the tail lade during these short intervals might not have time to get over the dam before the mill was set on again, and the water withdrawn from the channel of the river, more especially in those places where the lades are very long; but whenever the mills are stopped for the night, and always during Sundays, it ought to strenuously insisted on, that all the water should be sent down the channel of the river.

To allow this to be done, there must be a sluice or sluices at the intake or head of every lade; and to save the trouble of going to the intake to open and shut the sluice, some mechanical contrivance might, in many cases, be devised for working them from the mill, such as by having the sluice hinged horizontally on a vertical axle in the centre, like a throttle valve, and opened by a wire, like the signals of railways, and shut by a balance weight.

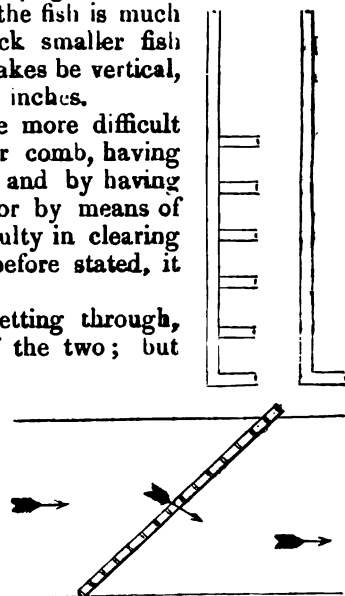
6. We consider it absolutely necessary that there should be a hake, both at the intake and at the outfall of the tail lade, consisting of iron bars, having not more than two inches clear open space between them, and which we think, contrary to the usual practice, ought to be placed horizontally instead of vertically, with the narrow edge of the iron bar facing up the stream.

By being so placed, although they might catch branches and other large substances, they would not catch leaves, stalks, or twigs, so readily as upright bars of similar width between would do; while, at the same time, as the depth of the fish is much greater than its breadth, the horizontal bars would keep back smaller fish than upright bars, of similar width apart, would do. If the hakes be vertical, the clear opening between the bars must be not more than $1\frac{1}{2}$ inches.

It is pretty commonly assumed that horizontal hakes are more difficult to clean than vertical ones; but by using a sort of rake or comb, having the teeth placed at the same distance apart as the bars are, and by having the handle a continuation of the head or connecting bar, or by means of a single L shaped hook, there seems to be no practical difficulty in clearing the horizontal hake when it does choke, which, however, as before stated, it is much less likely to do than a vertical one.

If the object were to prevent leaves, stalks, &c., from getting through, doubtless the vertical bars would be the more effective of the two; but the very reverse of this is the desideratum.

The hake or grating ought to be placed, not vertically, but considerably inclined, so as to give it a surface much greater than that of the sectional area of the lade. It might be hinged so as to be capable of being lifted up, in order to be cleaned; but there might be an objection to this, from the facility which it would give of keeping it occasionally open altogether.



A self-cleaning hake, proposed by Mr. Dow, of Alloway Mills, would be tolerably efficient in keeping fish from getting down, and perfectly so in preventing their ascent; and we think it worthy of a trial if the expense be not grudged, as being more than commensurate with the saving of trouble in cleaning by hand.

The bulwarks of stones, which are placed in a slanting direction into the river at the tail of several of the lades, ought to be removed.

8. Of course the present supply of water ought to be carefully preserved from diminution; and farther, we consider that it would be of immense advantage to the mills, the fishings, and to the low lands adjoining the river, which are now liable to be flooded, to increase the available storage of Loch Doon, by raising its high water level. This would make it always capable of receiving and storing up the summer and autumn floods, which are those which do most mischief by inundating the low lands, and carrying off the crops or injuring them.

The advantages to the mills, fisheries, &c., of a storage of water in Loch Doon, cannot be too strongly impressed on the minds of the Heritors of the river Doon; for the value of the water power would be most materially enhanced, and, in dry weather, there would be a much larger body of water in the river than at present, which would greatly facilitate the ascent of the salmon.

The present area of the loch, by the Ordnance Survey, is fully 1,240 acres, and its outlet is such that a large additional quantity of water may be impounded at a very small expense.

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9. A number of the mills are so neglected, and the falls are at present of so little value, that we believe they might be bought up on very moderate terms, and whenever that is practicable, we would advise it to be done.

10. The lades generally have too much fall between the intake and the wheel.

If the fall were reduced so much as that the top bank at the mill should be higher than the surface of the water at the intake, the opening and shutting of a sluice at the intake might be dispensed with except during floods, the mill being stopped by merely shutting a sluice close above the wheel. The water in the lade would then merely be raised up to the line of the intake without overflowing the sides of the lade, and would stand dead until the wheel-sluice be opened again.

This might be done in most of the lades by cleaning them out, or, if necessary, increasing their sectional area, and by slightly raising the banks. In the short ones, it may be done with the greatest ease. The Deanston mill-lade has a fall of barely six inches per mile. It is not to be expected that such a moderate rate of fall could be adopted in the comparatively small lades on the Doon, but any approach to it would materially increase the power of the wheels, besides effecting a saving of trouble in opening and shutting the head sluices.

11. The purity of the water in the river and its tributaries ought to be preserved and protected with the greatest care.

12. No stake nets, bag nets, fixed nets, or implements of any description for the catching of fish, ought to be used within 2,000 yards in a straight line from the nearest part of the fresh-water stream of the river, as traceable along the sands at low water of spring tides, and as far as possible these modes of fishing ought to be given up altogether, or not continued longer than the 10th of August. This removal of all fixed obstructions to the entrance of the salmon into the river, ought to be one of the first things taken into consideration, and adopted by the associated heritors of Doon; else, all other appliances to facilitate the ascent, increase, and protection of the salmon, in the river itself, will be of little moment to the fishings generally.

13. The present practice of ceasing to fish by nets after the 10th of August, ought to be continued in such a small salmon river as the Doon.

14. We believe that the value of the Doon fisheries, especially as an angling river, would be found in a few years to be greatly increased by prohibiting the use of nets of a smaller mesh than 2½ inches from knot to knot, allowing four knots to each mesh, or 10 inches along the sides of the square of each mesh.

15. Every possible protection ought to be afforded to the spawning fish, and to the smolts or fry while in the river when descending to the sea, and the extent of good spawning ground approachable by the fish ought to be increased as much as possible.

*James Leslie.
John Shaw.*

22 August 1855.

SECOND and Concluding Section of the REPORT by *James Leslie, c. z.*, Edinburgh, and *John Shaw, Drumlanrig*, to the ASSOCIATED HERITORS of the River *Doon*, on the Salmon Fishings and Mill-Power of that River, 1855.

IN further pursuance of the objects of the remit of the Standing Committee of the Associated Heritors of Doon, of 2d January 1855, we shall now proceed, as stated in the first section of our report, to apply the general principles there laid down, regarding the dam-dykes (§ 1, 2, 3, 4, 9), lades (§ 5, 6, 10), river (§ 8, 11), and fishings (§ 12, 13, 14, 15), to the various dykes and other obstructions to the passage of the salmon in the river Doon individually, and to point out the remedies which we think may and ought to be applied to the case of each, so as to secure a free and uninterrupted passage for the fish, both up and down, between Loch Doon and the sea, and at the same time to prevent their being trapped in the mill-lades, or injured by the wheels, or otherwise, by fixed machinery, or nets of any kind, in the river, or at its mouth, or along the adjoining sea-shore.

There has been laid down on the plan of the mouth of the river Doon and adjoining shores, and coloured light yellow, the 2,000 yards on each side of the mouth of the river; taking, as a fixed medium point, the centre of the rocks called the "South Rocks." On the south, this space terminates at the "Devil's Rock;" and on the north, comes near to the northern march of Lord Ailsa's fishings.

Regarding the shore fishings within this northern portion of the coloured space, if the Associated Heritors of Doon do not determine upon abolishing the shore fishings altogether, we recommend, that, when Mr. Oswald, the proprietor of the adjoining shore fisheries, (135—APP.)

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does not use any nets to the south of the harbour of Ayr, no nets should be used within the coloured space; but, when Mr. Oswald uses any nets to the south of the harbour of Ayr, that nets may be used also within said space; placing them not farther south than 200 yards within the march which divides the shore fishings of Lord Ailsa from those of Mr. Oswald.

Regarding the shore fishings to the south of the southern portion of the coloured space, on the same supposition that the Associated Heritors of Doon may determine not to abolish altogether the shore fishings, we recommend that these fishings be allowed only to the south of the "Devil's Rock;" as an arrangement, in such circumstances, likely to prove the least injurious to the objects which the Associated Heritors have in view; while, at the same time, the value of these shore fisheries would be much enhanced, by the relinquishment of nets in the river, or the employment of those only with a large mesh, and by the execution of the other contemplated improvements within the river itself, which must necessarily lead to a great increase in the number of fish along the shores of the adjoining sea.

We shall now commence at the mouth of the river, and proceed regularly upwards; and, after shortly describing each subject as we found it, by personal inspection, or by the plans of Messrs. M'Derment, which we have signed as those referred to in this section of our report, we shall specify, in each case, what operations we recommend to be done, in conformity with the general principles laid down in the first section.

No. I.—DOONFOOT (GRAIN) MILL has a fall of 4 feet 7 inches. This dyke is 420 yards up from the high-water mark on the shore, and the tide flows up to it. It is 252 feet long, slanting across the river, which at that place is 170 feet wide; but above, and at some distance below, only 80 feet wide.

The following are the heights and slopes, &c. :—

NO. I.—DAM-DYKE.	At end of Dyke nearest Mill.	At Centre of Dyke.	At end furthest from Mill.
Perpendicular height of coping above bed of river, at base of back slope.	5 ft. 7 in.	3 ft. 6 in.	4 ft. 7 in.
Depth of water at base of back slope - -	6 inches.	dry	1 inch
Inclination of back slope facing down river -	2 hor. to 1 perp.	4 $\frac{1}{2}$ hor. to 1 perp.	4 hor. to 1 perp.

The mill-wheel is close to the dam, and the intake sluice is quite in the apex of the triangle formed by the dam and the left bank of the river. There is a slap, closed by a board in the dam, 3 feet 9 inches wide and 1 foot deep, nearly half-way across from the mill. This is a very unsuitable place for the slap, as the water, instead of running into a pool below, falls on a rock higher than the ordinary bed of the river.

The sluice above the wheel here necessarily is always shut when the wheel is not going, and it is provided with a hake, having openings of 1 $\frac{3}{4}$ inch wide.

The tidal water flows up the tail-lade as far as the wheel. The tail-lade is 310 yards long, and of considerable breadth, especially where it rejoins the river, and salmon frequently ascend it.

The dyke is pretty well and closely built, so as to be nearly water-tight; and there are no vertical logs or boards fastened either on the top or at the bottom.

The bed of the river below the dam is generally rocky or gravelly, and the stream shallow and rapid, so that, while the mill is going, in average states of the river, no fish can ascend. The portion of the river bed between the dyke and the tail-lade, which is drained by the lade, is 880 feet. (See Plan No. I.)

We consider this dyke to be sufficiently water-tight, and in that respect to require no alteration. Although rather oblique, its position need not be changed; but the entrance to the lade, being in the apex of the angle, ought to be removed, if possible, a little further up the left bank of the river; the present slap, which is over a rock raised above the general level of the river, be built up, and a new slap, 5 feet wide by 1 foot 3 inches deep, be formed where there is deeper water below, and a stronger stream. The slap ought to slant down the face of the dyke, and to point down the river, instead of being at right angles to the dyke; and in that way it may have its slope considerably flattened beyond that of the dyke. The pool below the dam-dyke, near the right bank, should be enlarged and deepened, by having a small subsidiary dyke formed of rough stones piled together across the channel, a little above the small island shown in the Plan. There should be a hake at the intake and outfall of the lade. The width between the bars of the hake, from centre to centre, ought not to be more than 1 $\frac{1}{2}$ inch, if the bars be vertical. The water should be kept pure from the contamination of mill-seeds and other pollutions.

No. II.—ALLOWAY (GRAIN) MILL has a fall of 7 feet. This dyke is 361 yards above dyke No. 1. It is well placed, being right across the river, forming a slight curve, with its convex face upwards. It is 90 feet in length, the width of the river there being 88 feet.

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The slopes and other dimensions are as follows:—

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No. II.—DAM-DYKE.	At end nearest Mill.	At Centre of Dyke.	At end furthest from Mill.
Height of coping above bed of river at base of back slope.	4 feet.	3 ft. 6 in.	3 ft. 9 in.
Depth of water at base of back slope - -	1 ft. 1 in.	1 ft. 4 in.	1 ft. 7 in.
Inclination of back slope facing down the river.	2 $\frac{1}{10}$ hor. to 1 perp.	2 $\frac{1}{4}$ hor. to 1 perp.	2 $\frac{1}{2}$ hor. to 1 perp.

This dyke is of good close masonry, and it loses little or no water; but it has a perpendicular face of about a foot in height, at the bottom of the outer slope down the river, which is very objectionable. There is no flap in the dam, but fish may ascend when the river is in a favourable state.

The intake lade is 156 yards, and the tail lade 237 yards long. They are both water-tight. There are three sets of sluices; viz., one at the intake; one forming a waster, about 30 feet above the mill; and one for shutting the water off the wheel. The waster is of itself quite capable of emptying the lade; and therefore, to save trouble, the intake sluice is never shut. Consequently the river channel between the dyke and the waster, which is rocky and gravelly, and 150 yards in length, is often dry; while, without doing any injury to the mill power, and only at the sacrifice of a little trouble in shutting the intake sluice, the whole of the waste water overflow might be running down the natural channel of the river at all times when the mill is not going. The portion of the river bed between the dyke and the tail lade, which is drained by the lade, is 1,520 feet. The intake itself is well placed, being at right angles to the dyke.

There is no hake to this intake, nor to the bottom of the tail lade. There is one hake with iron bars, having spaces of 2 $\frac{3}{4}$ inches above the wheel. (See Plan No. II.)

We consider this dyke also to be sufficiently water-tight. We recommend that the waste water, at present flowing pretty equally over the whole surface of this dyke, should be concentrated into one stream, by lowering 1 foot 3 inches, a portion five feet long, in the centre of the dyke, or where the stream below most favours the ascent of fish; and that the slope should be extended out beyond the upright face at the bottom. In addition to this, a pool should be formed below the centre dyke, by throwing together, across the channel, the stones of the old dam, for the purpose of lessening the height of the fall, and giving the fish a greater depth of water to leap or run from; and as there is a bad access to this dyke, the stones ought to be cleared out from a small portion of the centre of the bed of the river, for some distance below the dyke. All these alterations are necessary, on account of the great length of the river bed, 1,520 feet, drained by the lade. The distance between the intake and the mill wheel being here inconsiderable, the waste water sluice should be closed up altogether, or, at all events, put under the most stringent regulations possible. There ought to be hakes at both the intake and lower end of the lade, having openings of not more than 1 $\frac{1}{2}$ inch between centre and centre, if the bars be vertical. Pollution of the river from mill-seeds, &c., ought to be here prohibited.

No. III.—DUTCH MILLS have a fall of 8 feet. The lade water is divided in the proportions of two-thirds to the corn mill, one-third to the woollen and scouring mills.

This dyke slants very much up the river, which is objectionable, and is 320 feet long, while the width of the river is only 100 feet. It is very open, being merely a mound of loose stones laid together, so that a great deal of water runs through it. There is no log or plank either at the top or the bottom. The statutory "constant slap" is here also wanting; and it would be of little use, unless the dyke were made nearly water-tight.

The following are the slopes and other dimensions:

No. III.—DAM-DYKE.	At end nearest Mill.	At Centre of Dyke.	At end furthest from Mill.
Height of coping above bed of river at base of back slope.	3 feet	1 ft. 6 in.	1 ft. 5 in.
Depth of water in bed of river at base of back slope.	2 inches.	2 inches.	3 $\frac{1}{2}$ inches.
Inclination of back slope facing down the river.	2 hor. to 1 perp.	2 $\frac{1}{2}$ hor. to 1 perp.	1 $\frac{1}{2}$ hor. to 1 perp.

Appendix B.

The crest of the dyke is not level, but rises 5 inches from the end at the intake to the other end. There are three sluices at the intake. There is a waste sluice above the grain mills, besides a large overflow or waste-weir 33 feet long; and the lade itself is not water-tight; therefore an immense quantity of water enters the lade, beyond what produces mill-power, which is very objectionable. In front of the grain mill wheels, there are two sluices, and there is one in front of the woollen mill wheel. The intake sluices are very badly placed, being quite in the very sharp angle formed by the dam and the bank of the river. The length of the river, from the intake to the large waster, is 400 yards, which would never be without plenty of water when the mills are not going, if there were no waster, the lade itself were water-tight, and the intake sluices were shut; which however, we understand, these sluices seldom or never are.

There is no hake at the intake sluices; there is a wooden one above the grain mills, 4 inches between the bars, which is too wide. A hake which had existed in front of the woollen mill wheel, has been destroyed. There are none at the tail-lades. The portion of the river bed, between the dyke and the lade of the woollen mill, and which is drained by the lade, is 1,530 feet. (See Plan No. III.)

We recommend that this dyke be made water-tight, which is tantamount to recommending a new dyke of better materials, with the old to help. Supposing, therefore, that the building of a new dyke will be preferred, it ought to be placed less obliquely across the river, so as to be considerably shorter than the present dyke, and with the lower end placed say 8 or 10 feet below the intake sluice. This new dyke should be made water-tight, with a depression in the centre of 5 feet by 1 foot 3 inches deep, and with an inclination lower than that of the rest of the dyke, into which the whole spare overflow may be concentrated. On account of the great length between the dyke and the lowest lade, 1,530 feet, it is of importance that none of these recommendations be omitted. Farther, the present sluices at the intake of the lade should be made easily workable, or others substituted that are so. The lade itself should be made water-tight. The present large waster of 33 feet wide should be shut up, so as to ensure the intake sluices being closed when the mills are not going. Farther, hakes should be erected at the intake, and at the two tail-lades; and the bars, if vertical, on these hakes, should be not more than $1\frac{1}{2}$ inch from centre to centre. No seeds should be discharged into the river from these mills, nor the refuse from the woollen and scouring mills, unless subjected to previous filtration in a properly constructed filter bed.

No. IV.—AUCHENDRANE GRAIN AND SAW MILLS have a fall of 5 feet 6 inches. The dyke is very oblique, being 256 feet long, curving downwards, while the river is only 87 feet wide. It is of very open stonework, through which a great deal of water escapes, as it does also by the sides of the lade.

The following are the slopes and other dimensions:—

No. IV.—DAM-DYKE.	At end nearest Mill.	At Centre of Dyke.	At end furthest from Mill.
Height of coping above bed of river base of back slope.	3 ft. 4 in.	2 ft. 8 in.	2 ft. 3 in.
Depth of water in river at base of back slope	1 ft. 8 in.	1 foot	1 foot
Inclination of back slope facing down river -	$2\frac{7}{10}$ hor. to 1 perp.	$3\frac{1}{2}$ hor. to 1 perp.	$3\frac{1}{2}$ hor. to 1 perp.

The dyke presents an upright face at the foot of the slope down the river, which is objectionable. The crest is level, and there is no slap. The dam is not strong, and it is frequently injured by floods; and the expense of annual repairs must be considerable. There is no intake sluice. Above each of the wheels there is a sluice, and also a waster for each. Either of these wasters is capable of draining the lade, and consequently, so far as the interest of the mills merely is concerned, the want of a head sluice is not felt. There is no hake at the intake, and no effective one close to the wheels. The distance from the intake to the mill is 570 feet. The portion of the river bed between the dyke and the tail-lade, which is drained by the lade, is 1,280 feet. (See Plan No. IV.)

We recommend that this dyke be made water-tight, with a proper "constant slap" near the centre, or wherever there is the best stream and pool below. From the frail state of this dyke, it would probably be cheaper to build a new dyke, in which case it may be less oblique, and consequently, shorter than the present. The intake of the lade should be removed out of the apex of the angle, and placed further up the left bank of the river. Below this dyke, a constant stream should be formed by confining the water into a narrow channel. At the intake a sluice should be placed, which must be shut when the mills are standing, as a large portion of the river bed is drained by this lade. The waster sluices within the lade should be closed up, or provision made that they shall never be opened except in cases of great emergency. The entire lade between the mills and the intake should be made water-tight. Hakes, with openings between the bars, if vertical, of not more than $1\frac{1}{2}$ inch from centre to centre, should be placed at the intake, and at each of the two tail-lades. No saw-dust, mill-seeds, or other nuisances, should be allowed to pass into the river from these mills.

No. V.

No. V.—MONKWOOD OR PATERSON GRAIN MILL has a fall of 8 feet. This dyke is very oblique, being 296 feet long, while the width of the river is only 72 feet.

The following are the slopes and other dimensions :—

No. V.—DAM-DYKE.	At end nearest Mill.	At Centre of Dyke.	At end furthest from Mill.
Height of cope above bed of river at base of back slope.	3 ft. 1 in.	2 ft. 7 in.	1 ft. 3 in.
Depth of water at base of back slope - -	7 inches.	11 inches.	5 inches.
Inclination of back slope facing down the river.	3 $\frac{1}{2}$ hor. to 1 perp.	3 $\frac{1}{2}$ hor. to 1 perp.	4 $\frac{1}{2}$ hor. to 1 perp.

This dyke is nearly level along the crest. It is not very tight, but it is not nearly so open as many other dykes on the river. It has no slap, but nevertheless, being of no great height, it may, when there is water running over, be easily surmounted by the fish. There is one sluice above the wheel, and one waster in the lade.

There is no intake sluice, and no hake, except one close above the wheel, having 1 $\frac{1}{2}$ inch openings.

The mill, which is nearly new, is standing, and, we believe, has never been wrought; and the lade is choked up with brushwood and rubbish. The portion of the river bed, between this dyke and the tail-lade, which is drained by the lade, is 1,200 feet. The mill is distant from the intake 610 feet, and from the tail-lade 445 feet. (See Plan No. V.)

We think that this dyke may be held as sufficient, with only a lowering of a portion of its upper surface, to make a slap 5 feet by 1 foot 3 inches in the centre, or where the stream and pool below are most favourable, in order to concentrate into one stream the waste water now flowing over all parts of the dyke. The lade should be made water-tight, particularly towards the head. The intake should be moved, if possible, out of the apex of the angle, further up the left bank of the river. A proper sluice should be placed at the intake, to be kept shut when the mill is not going; and proper hakes at the intake and tail of the lade, of suitable widths between the bars, as already specified for the other mills.

No. VI.—DALRYMPLE PIRN MILL is driven by a turbine wheel, and has a fall of seven feet seven inches. The river, immediately above the dam, is only 80 feet wide; and the dyke, which is placed obliquely across it, is divided into two by an island. The lower or right bank division, where the intake is placed, is 74 feet long, of closely-built rubble, having a log flush with the masonry along the top; and the division between the island and the left bank is 120 feet long, of rough rubble, with a little water running through. There is no slap in either. At the time of our visit there was a considerable depth of water running over the right bank division, but none over the left, which is higher than the other.

The following are the slopes and other dimensions :—

No. VI.—DAM-DYKE.	At end nearest Mill.	At Centre of Dyke.	At end furthest from Mill.
LOWER OR RIGHT BANK DIVISION :			
Height of coping above bed of river at base of back slope.	4 ft. 2 in.	3 ft. 7 in.	3 ft. 9 in.
Depth of water in river at base of back slope	1 ft. 4 in.	1 ft. 2 in.	1 ft. 8 in.
Inclination of back slope facing down the river.	3 $\frac{1}{2}$ hor. to 1 perp.	3 $\frac{1}{2}$ hor. to 1 perp.	2 $\frac{1}{2}$ hor. to 1 perp.
DIVISION BETWEEN ISLAND AND LEFT BANK :			
Height of coping above bed of river at base of back slope.	4 ft. 1 in.	2 ft. 4 in.	1 ft. 9 in.
Depth of water in river at base of back slope	2 feet.	1 foot.	7 inches.
Inclination of back slope facing down the river.	1 $\frac{1}{2}$ hor. to 1 perp.	2 $\frac{1}{2}$ hor. to 1 perp.	2 $\frac{1}{2}$ hor. to 1 perp.

Appendix B.

There are two sluices at the intake; two in front of the wheel, and a waster into the river.

The intake sluices, we understand, are generally shut when the mill is not going, which should be the practice at all the other mills.

There is no hake at the intake, and only one above the wheel, $1\frac{1}{2}$ inches between the bars.

The portion of the river bed, between the dyke and the tail-lade, which is drained by the lade, is 660 feet.

The tail-lade from Cassillis Mill, the one immediately above, enters the river on the opposite side, about 133 yards below the Dalrymple Mill dam-dyke; so that frequently, when there is waste water enough to supply only these two mills, and nothing over, this portion of the river channel, which is coloured light yellow on the Plan, is rendered quite dry, excepting the small leakage of the dam; a result injurious to the fishings, but, it is feared, from the levels, irremediable. (See Plan No. VI.) On account of the mills, Nos. VI., VII., VIII., IX., their Plans have been laid down on the same sheet.

We recommend that the left bank division of this dyke be made water-tight, with a proper slap in it, as specified on the other dykes, capable of concentrating into one stream all the waste water overflow, and with an inclination much flatter than that of the dyke. This seems to be the most suitable channel for the passage of the salmon, as the bed of the river is higher in it than in the right bank channel, and the height to be surmounted so much the less. It would be of advantage to the fishings if the levels admitted of the Cassillis Mill tail-lade entering the river close below the dyke of the Dalrymple Mill. The distance between the mill and the intake sluices being so short, the waster within the lade should be closed up, and the lade made water-tight. Suitable hakes, with bars at the proper distances, as already mentioned, should be placed at the intake and tail-lades. All saw-dust, chips, and other refuse, should be carefully excluded from the river.

No. VII.—CASSILLIS MILLS have a fall of 11 feet. The mills on this dam are a grain and a saw-mill, driven by one wheel, but neither of them working; and a thrashing and a hook grinding-mill, driven by another wheel on the same lade further down. Of these, only the hook-mill is in a working state. The portion of the river bed between the dyke and the tail-lade, which is drained by the lade, is 1,470 feet.

The dyke may be ascended with ease, when there is sufficient water running over it. It is pretty closely built, and little water comes through it. It lies almost directly across the river, and is 124 feet long. There is a log along the top, which is nearly level, with the exception of a part in the middle, which is depressed 4 inches. There is no other constant slap.

The following are the slopes and other dimensions:—

No. VII.—DAM-DYKE.	At end nearest Mill.	At Centre of Dyke.	At end furthest from Mill.
Height of cope above bed of river at base of back slope.	3 ft. 6 in.	2 ft. 9 in.	1 ft. 8 in.
Depth of water in river at base of back slope	8 inches.	1 ft. 4 in.	9 inches.
Inclination of back slope facing down the river.	$6\frac{1}{10}$ hor. to 1 perp.	$4\frac{1}{2}$ hor. to 1 perp.	$7\frac{1}{2}$ hor. to 1 perp.

There is no sluice at the intake. There is one in front of the wheel of the grain and saw-mills, with a waster above it; also a sluice in front of the wheel of the thrashing and hook-grinding mills, and two sluices at waster above it. Both the wasters discharge into the lade, and not directly into the river. There are no hakes except one in front of the wheel of the thrashing and hook-grinding mills, which has bars $2\frac{1}{2}$ inches apart, which is too wide. The tail-lade from Barbieston Mill, the next above Cassillis Mills, joins the river 65 yards below the dyke of the latter, as may be seen by the Plan, where that space is coloured yellow. For that distance the river bed is here similarly circumstanced as it is here below Dalrymple Mill dam-dyke, as described under the head of that mill. (See Plan No. VII.)

We recommend that the present slight depression of four inches in the centre of the dyke be increased in size, so as to form a proper slap, capable of concentrating into one stream all the waste water which now flows over other parts of the dyke, from the present depression being too small. It would also be of advantage to the fisheries, if the levels admitted of the tail-lade of the Barbieston Mills being made to join the river immediately below the Cassillis mill-dyke. A proper sluice should be placed at the head of the lade, and proper hakes, with suitable openings between the bars, as already mentioned, at both the head and tail-lades. All refuse from these mills should be carefully excluded from the river.

No. VIII.

No. VIII.—BARBIESTON SAW MILL has a fall of seven feet four inches. The dyke is of rough rubble building, combined with wooden stobs, and a great deal of water running through it. It is slightly oblique across the river, and is 122 feet long, the width of the river being 90 feet. Its top is nearly level, though lowest at the left bank, where, at the time of our visit, there was water running over. It is very rough, and there is no log or plank along it, and no statutory slap.

The slope and dimensions are as follows :

No. VIII.—DAM-DYKE.	At end nearest Mill.	At centre of Dyke.	At end farthest from Mill.
Height of coping above bed of river at base of back slope.	2 ft. 9 in.	2 ft. 7 in.	2 ft. 6 in.
Depth of water at base of back slope - -	1 ft. 4 in.	1 foot	1 foot.
Inclination of back slope facing down river -	2 $\frac{6}{11}$ hor. to 1 perp.	4 $\frac{2}{3}$ hor. to 1 perp.	4 $\frac{2}{3}$ hor. to 1 perp.

There is no sluice at the intake, but there is one in front of the wheel ; and one of the wasters has a sluice. There is another waster, being an overflow through the bank of the lade, without a sluice. By it, on shutting the wheel sluice, all the lade water is discharged into the river. The wasters are 33 yards above the wheel, and only 20 yards below the intake. The portion of the river bed, between the dyke and the tail-lade, which is drained by the lade, is 760 feet.

There is no hake on this lade, excepting one in front of the wheel, having iron bars five inches and a half apart, which is ridiculously wide. The sawing bench is so placed that the sawdust and chips are accumulated in a situation where they can be very easily thrown into the river, or carried away by it in floods. This is an extremely objectionable arrangement. (See Plan No. VIII.)

We recommend that this dyke be made water-tight ; and if rebuilding be found cheaper than repairs, the new dyke be placed a little below the present intake lade, with a “ constant slap ” of the proper dimensions, capable of holding all the spare overflow water when concentrated into one stream, and with an inclination flatter than that of the rest of the dyke. The present sawing-bench should be removed further from the river. The power may be easily transmitted by a horizontal shaft, or otherwise. The lade should be made water-tight throughout, and the waster within the lade should be shut up, the distance being so short between the mill and the intake. An intake sluice, of the proper dimensions, should be placed at the head of the lade, and a hake be placed at the intake, and another at the tail-lade, with openings, if vertical, of not more than one inch and a half. Great care should be taken to prevent sawdust, chips, slabs, or other refuse, being discharged into the river from this mill.

No. IX.—BARBIESTON THRESHING MILL has a fall of 4 feet 10 inches. The dyke is of very rough rubble work, being little better than a mound of stones, and there is a great deal of water running through it. It lies very obliquely across the river, being 220 feet long, while the width of the river is 70 feet. The crest is not at all level, being all ups and downs, and it has no log along it. There is no statutory slap, though a portion in the centre is a few inches lower than the general level.

The following are the slopes and other dimensions :

No. IX.—DAM-DYKE.	At end nearest Mill.	At centre of Dyke.	At end furthest from Mill.
Height of coping above bed of river at base of back slope.	1 ft. 6 in.	1 ft. 11 in.	1 ft. 10 in.
Depth of water at base of back slope - -	dry.	1 ft. 3 in.	1 ft. 3 in.
Inclination of back slope facing down river -	2 $\frac{3}{4}$ hor. to 1 perp.	1 $\frac{1}{2}$ hor. to 1 perp.	1 $\frac{1}{2}$ hor. to 1 perp.

There is a sluice at the head of the lade, one in front of the wheel, and a waster sluice 28 yards above the wheel. There is no hake whatever on this lade.

The distance from the dyke to the waster in the lade is 260 yards. The portion of the river bed, between the dyke and the tail-lade which is drained by the lade, is 940 feet ; and the distance from the intake sluice to the mill is 880 feet. (See Plan No. IX). On account of the mills, Nos. 6, 7, 8, 9, being very near each other, their plans have been laid down on the same sheet.

Appendix B.

The height of the dyke is so small, that when there is a sufficient quantity of water running over it, the salmon can have no difficulty in ascending.
The four dykes are grouped within a very short space —

	Yards.
Dalrymple dyke to Cassillis dyke - - - -	400
Cassillis dyke to Barbieston dyke - - - -	220
Barbieston dyke to Barbieston threshing-mill dyke - -	410
All four being thus within a distance of - - -	1,030 yards.

These, even supposing that they were all of easy ascent, and created no difficulty, (which is not the case, as already shown), must, in the aggregate, form a very considerable obstruction to the passage of the fish; and therefore it becomes the more necessary to enforce very stringent measures regarding the “constant slaps” and other provisions, in all these four dykes and their lades, in order to make that obstruction as slight as possible.
We recommend that this dyke be rebuilt, as nearly as possible, water-tight, and less obliquely across the river, from a point a little below the present intake sluices, with a “constant slap” in the centre, or where the stream most favours the fish, of the proper dimensions, capable of holding all the spare overflow, when concentrated into one stream, and with an inclination flatter than that of the rest of the dyke. The head sluice should be always shut when the mill is not going; and the mill cannot be often going, especially in summer, as it is only a threshing-mill. The waster within the lade should be closed up, or kept under proper control, and never opened except in cases of great emergency. Suitable hakes, of the proper dimensions, as already mentioned, should be placed at the intake and tail of the lade. Nuisances from this mill entering the river should be prevented.

No. X.—SHELDON MILLS have an aggregate fall of 9 feet 7 inches. They consist of a scouring-mill, No. 1, a woollen mill, No. 2, on two separate lades, and of a hook-grinding mill, No. 3, below both of the former.
The dyke lies obliquely across the river, and is 200 feet long, while the width of the river is 80 feet. It is built of rough open stones, and is tightened by turf. The upper or left bank end is low, and a good deal of water was running over; but there is no regular slap.

The slopes and dimensions are as follows :

No. X.—DAM-DYKE.	At end nearest Mill.	At centre of Dyke.	At end furthest from Mill.
Height of coping above bed of river at base of back slope.	2 ft. 3 in.	2 ft. 7 in.	11 inches.
Depth of water at base of back slope - -	6 inches.	1 ft. 3 in.	10 inches.
Inclination of back slope facing down river -	3½ hor. to 1 perp.	3½ hor. to 1 perp.	2 hor. to 1 perp.

There are four sluices at the intake; one sluice in front of each of the wheels, and one waster into the lade above each of the wheels. There are no hakes to any of the sluices or lades.
There is a gas-work at the side of the lade, which at one time, when working, discharged, we were told, all its refuse into this lade; and there is a spur of stones at the foot of the tail-lade, which must have the effect, whether intentional or not, of guiding the ascending fish into the tail-lade. The portion of the river bed, between the dyke and the tail-lade, which is drained by the lade, is 720 feet. (See Plan No. X.)
We recommend that this dyke be reconstructed in such a way as to be nearly water-tight, with a suitable “constant slap” in the centre, or where the stream favours most the ascent of the fish. This would probably be cheaper done by building it of new, more nearly straight across the river, from a point little below the present intake sluices, as at No. 2. The slap should be capable of holding all the waste overflow, when concentrated into one stream, and with an inclination flatter than that of the rest of the dyke. The water should be prevented from entering the lade when the mills are not going; and the distance from the two upper and principal mills being so small, only 70 yards, there can be no excuse for the head-sluices not being shut when the mills are stopped. This is a case where Section 10 of our First Report may be consulted with advantage, to which, for the sake of brevity, we have not referred before, although it is applicable also to many, and perhaps to all the other lades. In this case of No. 10, the water, except in floods, might be kept out from entering the lade, without shutting the head sluices, and merely by shutting the sluices in front of the mill wheels. The banks of the lade being raised, as mentioned in Section 10, and the waster closed, the water in the lade may be effectually dammed back by merely shutting the wheel-sluices, except in floods, when the head sluices would also require

require to be shut. Provision would, however, require to be made for the small mill, No. 3, if it were going when the other two were standing; but this mill is of little value, and might be bought up. Hakes, of the proper construction and width between the bars, as already mentioned, should be erected at the intake and at the tail-lade. The stones at the upper end of the tail-lade, where it enters the river, should be removed. Great care should be taken to prevent a repetition of the gas-work nuisance; and the refuse from it, and from the woollen and scouring and other mills, should be consumed, or be converted into some useful, or, at all events, innocuous substance, before entering the lade or the river.

No. XI.—PATNA GRAIN AND SAW MILLS have a fall of 8 feet 1 inch. They are driven by one wheel, which is at a very great distance, viz. 500 yards from the dam. The dam, which collects only the spare water of Dounieston mill-dam, situated scarcely 80 yards further up, is constructed of pretty closely built rubble. It lies obliquely across the river, and is 124 feet long, while the width of the river is 60 feet.

The following are the slopes, and other dimensions :

No. XI.—DAM-DYKE.	At end nearest Mill.	At centre of Dyke.	At end furthest from Mill.
Height of cope above bed of river at base of back slope.	3 ft. 1 in.	3 ft. 4 in.	3 ft. 3 in.
Depth of water in river at base of slope -	4 inches.	1 foot.	1 foot.
Inclination of slope facing down river -	5½ hor. to 1 perp.	4½ hor. to 1 perp.	4½ hor. to 1 perp.

There is no statutory slap in the dam. There is a vertical plank, 9 inches in height, battened down along the top, which is highly objectionable. There is no sluice at the intake, but there are remains showing that there had been one at some former time. There is one sluice above the wheel, and one waster-sluice 27 yards above the mill; all in very bad order; the waster being of course always open when the mill is not going, and discharging water even when the mill is going.

There is no hake at the intake, but there is one 72 feet above the wheel, with openings of 2½ inches, which is much too wide. There is a jetty of stones projecting into the river at the bottom of the tail-lade. The portion of the river bed, between the dyke and the tail-lade, which is drained by the lade, is 1,670 feet.

These mills being in a wretched condition, and evidently of very little value, we would recommend that, if possible, the dyke should be purchased up and removed. This dam having only the spare water of Dounieston dam, and being so very close below it, the two together must, in even average states of the river, almost completely dry its channel down to the bottom of the tail-lade of Dounieston mill, a space of 320 yards, which must be attended with very serious injury to the fishings. This space is coloured yellow on the Plan No. XI, which see; and, from Nos. 11 and 12 being situated so close together, the plans of these two mills have been laid down on the same sheet.

We recommend, if it be determined to keep up this dyke, that the statutory regulations regarding it be properly carried out; the dyke be rendered perfectly water-tight, and all the waste water overflow collected into a "constant slap," having an inclination flatter than the dyke itself. The vertical planks or logs, now on the top of the stone structure of the dyke, must be removed, as being an unwarranted encroachment. This removal might be effected without injury to the mill power, by widening and deepening the lade near the head. A proper head-sluice should be placed at the intake, and be kept always shut when the mills are not going. The lade should be made water-tight throughout, and the waster within the lade be put under proper management, so as never to be open except in cases of great emergency. The existing sluices should be repaired, and suitable hakes, as at the other mills, be placed at the intake and bottom of the tail-lade. The stones projecting at the tail-lade into the river should be removed. Sawdust, mill-seeds, and other refuse, should be carefully excluded from the river.

No. XII.—DOUNIESTON MILLS have a fall of 7 feet 8 inches. The mills are—a pinn mill and a cotton thread spinning mill, with dyeing and bleaching works attached; all driven by one wheel.

The dyke, which is the uppermost on the Doon, lies very obliquely across the river, and is 250 feet long, while the river is only 62 feet wide, and the intake is badly placed in the very apex of the angle. The dyke is of rather closely built rubble, with a log along the crest, nearly level, and from 1 to 4½ inches higher than the stone. The spare water runs mostly over the dyke, which has a fair slope, and a pool below, formed by the Patna mill dam, No. 11.

Appendix B.

The following are the slopes and other dimensions :—

No. XII.—DAM-DYKE.	At end nearest Mill.	At centre of Dyke.	At end furthest from Mill.
Height of coping above bed of river at base of back slope.	2 ft. 4 in.	2 ft. 6 in.	2 ft. 8 in.
Depth of water at base of back slope - -	7 inches.	9 inches.	1 foot.
Inclination of back slope facing down river -	5 hor. to 1 perp.	5½ hor. to 1 perp.	4 ⁹ / ₁₀ hor. to 1 perp.

There is no statutory slap, and no intake sluice to lade. There is one sluice above the wheel, and a waster sluice close above the wheel. There is no hake at the intake, but an oblique one above the wheel, made of iron rods, 2½ to 3 inches apart, which is decidedly too wide. The portion of the river bed, between the dyke and the tail-lade, which is drained by the lade, is 1130 feet. The mill is 750 feet from the intake. (See Plan No. XII). On account of the two mills, Nos. 11 and 12, being close together, their plans have been laid down on the same sheet.

We recommend that the log along the top of the dyke should be removed; and in no case ought timber to be used on the top of a dyke, unless it be sunk flush with the stone. A depression ought to be formed in the crest of the dam, to act as a slap in confining the spare water to one current. A proper sluice should be erected at the intake, and kept always shut, as it may easily be here, when the mills are not going. The lade should be made water-tight, and the waster within the lade either closed altogether, or opened only in cases of great emergency. Suitable hakes, as specified for the other mills, should be erected at the intake and tail-lade. Great care should be taken that none of the refuse from these mills be discharged into the river, or placed so near its banks as to be carried off by floods into the river.

DALMELLINGTON IRON WORKS.

These iron-works withdraw a considerable quantity of water, viz. nearly 100 cubic feet per minute, for working their engines, and for cooling the tuyeres of their hot-blast furnaces; and return it heated considerably further down the river, as may be seen from the Plan No. XIII. The quantity now taken is too small to have any seriously injurious influence on the fisheries; but, lest it should at any future time be increased to such an extent as really to be attended with bad effects, or new parties should start up claiming similar rights, means ought to be taken to settle the question, whether the Iron Company have any right to abstract and heat the water, and return it polluted into the river. If they are to have the privilege, either by right or favour, the water ought to be returned into very nearly the same place where it had been taken, and equally pure as when taken out; and there ought to be closely barred gratings both across the outlet and inlet.

A large village has arisen near these iron-works; but it is so placed, that the sewage from it may, at a small expense, and even perhaps with profit, be led into settling ponds or filters, and so freed from all mechanical impurities before it enters the river; or the sewage itself may be used advantageously, and at small outlay, in irrigating the adjoining meadows. The same remarks may be applied to the sewage of all the other villages we saw on the Doon, viz. Dalrymple, Patna, and Dalmellington. At present these sewages are inconceivable; but, knowing the efforts, sometimes unsuccessful, now making in other places to clear rivers from sewage, our advice to the associated heritors of Doon is "to oppose beginnings;" as the fisheries on many rivers have been totally destroyed by sewage and refuse of public works.

We have not carried our investigations up the tributaries to the Doon, considering that the associated heritors themselves might, as occasion required, carry out the principles laid down in the first section of their Report, to practical results similar to those which we have completed regarding the main river.

NESS GLEN.

From the accompanying Plan and Sections, No. XIV, the total rise from the bottom of the river at the entrance gate into Ness Glen to the sill of the sluices at the foot of Loch Doon, is 110½ feet; and the distance between these two points is 4,350 feet. The bed of the river at the entrance gate into Ness Glen, is about 520 feet above the average high-water mark of the sea. The height, therefore, of the sill of the sluices of Loch Doon is about 631 feet above the level of the sea. Of this fall, not above one-seventh is at present occupied by mills; and, taking the course of the river from Loch Doon to the sea to be 21 miles, not more than one-eighth of this length is drained by lades.

The section of Ness Glen shows it to be very steep; and there is an artificial dam constructed across the river in Ness Glen, said to be for the purpose of keeping back pike from

from getting into Loch Doon. This dam is perpendicular, and 8 feet 5 inches in height in the centre, or 3 feet 5 inches above the water below, which is 5 feet deep.

This must be a very serious impediment to the passage of the salmon up this steep glen to the loch; and we think it might be lowered, divided, or otherwise made much more easily surmountable by them, without allowing of the ascent of pike, and that measures ought to be taken accordingly to have it placed under proper regulations, like the other dykes across the channel of the Doon, or removed altogether.

OUTLET OF LOCH DOON.

There are two sluices at the top of Ness Glen, leading into Loch Doon, but only one of them is ever open. Their width is 6 feet, and their depth 6 feet 8 inches. Both sluices are of the same size. The depth of the water in the channel of the sluice, which was open, was 3 feet 6 inches when the survey was taken, being, it is understood, about its average flow. (See Plan and Sections, Nos. 15, 16, 17 and 18.)

As before stated in the first section of our Report, we recommend, both for the sake of the mills and of the fisheries, that the storage of Loch Doon should be increased by raising its high-water level; by which means, without any damage to property beyond flooding a small portion of muir land on its shores, there might be an available depth of 20 feet. This would give a storage of 1,080 millions of cubic feet, which would give above 4,000 cubic feet a minute for six months in the year, in addition to the natural flow of the river. This quantity would fill a rectangular channel of 12 feet wide and 2 feet 8 inches deep, falling 1 in 4,000, or nearly 16 inches per mile.

In the event of this being done, we consider that it would be necessary to have two salmon ladders for the ascent of the salmon; one to be used when the loch is not above half full, and the other when it is above half full; as it is difficult to adapt one to the varying conditions attending so great a rise and fall as 20 feet. Each of the passages must be so arranged when in tunnel, as to have air and light over the surface of the water, and to have no under current of water shooting out through a sluice with such velocity that no fish can overcome it. There must be a waste weir of sufficient expanse to prevent flooding, and the sluices, &c. must be all placed and arranged so as to be easily worked above the level of the water in the very highest state of the loch.

We are of opinion that all these desiderata can be easily achieved, and at a moderate expense, considering the great objects thereby secured; but we are not prepared to submit any specific plan, showing the details of the structures and apparatus required, beyond that delineated in the accompanying Sketch Sections, No. 19; as we consider that it would be rather premature to proceed so far, until it be seen whether the question of the raising of the level of the loch be entertained at present. By thus increasing the constant supply of water from the loch, and, consequently, thereby increasing the average flow in the river, anything that may be done for the improvement of the dam-dykes, would be rendered vastly more efficient, and the mill power be much enhanced in value.

In conclusion, we consider the Doon, although small, to be naturally a very good river for salmon; but its natural advantages are rapidly passing away; and other circumstances of an opposite character are rising in their place, which, if not speedily arrested by decided measures, such as, or similar to, these we have recommended, must necessarily lead in a short time to the destruction of the fisheries altogether. We are of opinion that slight and partial expedients will be only a profitless expenditure, and that, unless some really efficient and comprehensive scheme of improvement can be adopted and carried out, it would be better to resign at once the fisheries to their fate.

20 December 1855.

*James Leslie.
John Shaw.*

APPENDIX C.

Appendix C.

PAPERS delivered in by *Mr. Elias Cathcart*, 13 June 1860.

CONDITION of the RIVER POLICE, and TABULAR VIEW of the DAM DIKES and SALMON FISHERIES on the Six Salmon Rivers of *Ayrshire*, as ascertained by Messrs. *J. J. M'Derment*, *C. G. Ayr*, and *James M'Creadie*, Tacksmen of Fixed Nets and other Fishings along the *Ayrshire Coast*. 29 May 1860.

RIVER POLICE.

THE protection of the fish in the various rivers is uniformly insufficient. As a great deal of poaching is carried on with nets and with lights at night, there should be persons appointed to watch the various rivers.

DAM DIKES, &c.

There are no statutory salmon slaps in any of the dikes, except No. 1 on River Ayr, and No. 5 on River Girvan; so that fish coming up the rivers will generally take the mill lades, and go up them. These statutory slaps can be easily given, and still preserve the mill power, by various methods, such as, first, by increasing the diameter and width of the mill wheels; or, second, by erecting a subsidiary dike, half height of original dike, about 30 yards distant from original dike; the same as is at No. 1 mill, River Ayr. A free run should be given in the river bed to where slaps are made in dikes; and these slaps should be as near to the centre of the river as possible. Becks or gratings should be put in front of head sluices; the space between the bars should be one inch, so as to prevent smolts coming down the lade, and being killed by the mill wheel. The water should be excluded from the mill lades when the mills are not working, and always between the working hours from Saturday night to Monday morning; the sides of the lades should be made tight, so that the water taken from the bed of the river into the lade shall be used only in the production of mill power at the wheel, and not wasted, before it reaches the wheel, through or over the sides of the lades, or of the waste water deliveries. In all cases good sluices should be erected at the head of the lades, and should be kept always shut when mill is not working. In the summer season the millers at some dikes put turf and wood on the top of the dike; but this, we think, should not be allowed. There should also be some restriction (on new mills especially) on the distance from head of mill lade to foot of tail race. The dikes are generally all at a considerable angle across the river, thus making the mill lades join at the apex of the angle, and consequently directing the fish to go down the lade. This should be remedied by taking the lades further up the dam. The dikes should not be allowed to be sloped to near the top, and then made vertical, but should have a regular incline; or else at head of slope there should be a space of a few feet horizontal before the vertical portion. It is worthy of notice that most objectionable dikes are at the mouths of the rivers, excepting on the Rivers Ayr and Stinchar.

SANITARY.

Wherever the mill is marked "manufacturing," the discharges from these are mixed with poisonous matter. Also saw mills; the sawdust is allowed to go into the river, and is very injurious. Also from grain mills; the seeds, in some cases, are put into the rivers, and are, to a certain extent, deleterious. It is the uniform practice to discharge the waste from all these kinds of mills into the adjoining river, excepting from a few of the grain mills, and one or two of the manufacturing mills. The success which has attended the exclusion of these waste and poisonous products from a few of the mills shows how easy these improvements could be extended to all the others. At present all the sewage of the various towns and villages on the banks of the rivers are discharged into these rivers, to the great injury of the purity of the water, and, consequently, the destruction of the fisheries. So far as this can be obviated by intercepting sewers it ought to be done.

SALMON FISHERIES.

The fisheries within the rivers Garnock, Irvine, and Ayr, with their various tributaries, excepting as far as the brackish water extends up these, are destroyed, as affording any supply to the markets: even for rod fishing they are almost worthless. The other three rivers,

rivers, viz., the Doon, Girvan, and Stinchar, excepting so far as the brackish water extends up these, also now afford no supply to the market, although there may be occasionally a few fish now and then caught and sold to the public. The sport for rod fishing is now also greatly declined; the fish do not now ascend the river during floods, as they used to do about 30 years ago. We think sufficient evidence can be obtained to prove that all these rivers, about 30 years ago, afforded a considerable supply of fish to the markets, and also gave excellent rod fishings to the proprietors and their friends. We have been credibly informed that there are numerous grants by Crown charters of salmon fisheries in all the six rivers.

We are decidedly of opinion that the productiveness of the fisheries within these rivers may yet be restored by adopting the measures we have recommended, or some others equally efficient; as well as adopting some efficient measures regarding the fisheries at the mouths of the rivers and adjoining sea-coasts.

In the annexed tabular state the dikes are numbered from the sea upwards.

When the word "fish" is employed, it means fish of the salmon kind; and where the word "steam" is used, it means in addition to water power.

James M'Creadie.

J. J. M'Dermont.

David Brown, Clerk.

RIVER GARNOCK flows into the Sea below the Town of Irvine, and has important Tributaries, viz., the Lugton, the Rye, and the Poduff, and is in length 16 Miles, and has a Catchment Bason of square miles. There are on it and its Tributaries upwards of 11 Dikes.

NAME of MILL	Kind of Mill.	Average Height of Di-ke.	Slope of Di-ke.	Grating in Front of Wheel.	Could Fish get over Di-ke in average State of River?	SPECIAL REMARKS.
1. Dirrans -	Saw mill -	3 6	1 in 3	none -	yes.	Fish could get over if water.
2. Kilwinning (steam.) -	Corn and flour -	4 9	1 in 3	2½ in. wide	no -	
3. Dalgarveen (steam) -	Corn and flour -	4 6	1 in 3½	2½ in. wide	yes.	
4. Bridgend (steam)	Spinning, including washing of wool.	5 1	1 in 11 upper portion vertical 2 9	no -	yes -	
5. Dennyholm -	Flax mills -	5 4	1 in 8	no -	yes -	Process carried on at these works for distillation of water, which used to kill fish; fish cannot easily ascend dike.
6. Nether Mill -	Barley and corn mill	4 6	1 in 5½	no -	yes -	Keep up water till a fresh, when it is discharged into river.
LUGTON WATER joins river about three miles from Irvine: not far from Mill No. 1, there is a						
7. Di-ke or Weir -	At Eglington Gardens	5 0	1 in 6	- - -	no -	With a little extra fresh, fish could ascend.
8. Seven Acres -	Corn -	- -	- -	- -	- -	With a little extra fresh, fish could ascend.
9. Montgreenan -	Corn.	-	-	-	-	
RYE WATER joins the Garnock a quarter of a mile above Dalry, not far from No 4 Mill: on it there is						
10. Toft Mill (steam)	Flour and corn -	4 6	1 in 4½	no heck -	yes.	
PODUFF BURN joins this river at the Town of Kilbirnie: on it there is Wool and Saw Mill						
11. Poduff -	Wool and saw mill -	- -	- -	- -	no.	

James M'Creadie.

J. J. M'Dermont.

David Brown.

RIVER IRVINE is in length 24 miles, and has some important Tributaries, viz. (1) the Annick, (2) Glazier, and (3) Marnock, besides numbers of small Burns; has a Catchment Bason of square miles. On it and its Tributaries, there are upwards of 31 Dikes.

NAME of MILL.	Kind of Mill.	Average Height of Dike.	Slope of Dike.	Grating in Front of Wheel.	Could Fish get over Dike in average State of River?	SPECIAL REMARKS.
1. Shewalton	Flour and corn	6 6	1 in 2½	good	no	Dike all but impassable in any state.
2. Girtrig	Corn	4 7	1 in 5½	-	yes.	
3. Lavemill	Sawmill	4 4	1 in 2	2½ inch	yes	Fish would have a difficulty in getting up.
4. Milton	Taken down, but to be re-built.	5 0	1 in 2½	no	yes.	
5. Cambuskeith	Flour and corn	5 0	1 in 3½	2½ inch	yes	500 yards from head of lade to foot of tail race.
6. Glencairn (steam)	Flour and corn	5 3	1 in 2½	2½ inch	no	Dike always dry during summer; water very much injured with print works; five of them in a mile.
7. New Mill (steam)	Flour and corn	4 3	1 in 5	-	no.	
8. Riccarton Mill	Corn, barley, and flour.	3 0 in two portions of 3' 6" & 2' 6"	1 in 1½ 1 in 4	2½ inch	no	In summer the mill takes all the water.
9. Crookedholm	Woollen mill, not working.	5 8	1 in 3	-	yes.	
10. High Milton (steam).	Flour and corn	4 3	1 in 3½	-	yes.	
11. Bankhead	Flour and corn	4 6	1 in 5 and space level.	-	yes.	

In addition to the above, we believe there are above the village of Galston—

12. Barr	Corn-mill.	—	—	—	—	
18. Patties	Corn.	—	—	—	—	
14. Darvel	Corn.	—	—	—	—	

But we did not visit them.

James M. Creadie.
J. J. M. Derment.
David Brown.

River Irvine—*continued*.

TRIBUTARY, No 1.

RIVER ANNICK is a Tributary of the River Irvine, and joins it at the Town of Irvine on the Sea Coast, and is in length 12 miles, and has a Catchment Bason of square miles.

NAME of MILL.	Kind of Mill.	Average Height of Dike.	Slope of Dike.	Grating in Front of Wheel.	Could Fish get over Dike in average State of River?	SPECIAL REMARKS.
5. Slate (steam) -	Flour - - -	6 10	1 in 4½	bad -	no - -	This mill takes all the water, and leaves the bed of river dry.
6. Perceton - -	Corn - - -	5 7	1 in 2½	- -	no - -	Ditto, and leaves the river dry for about 800 yards.
7. Cunningham Head (steam.)	Flour and corn -	5 3	1 in 2½	3 inch -	no - -	Ditto, and leaves the river bed almost dry for a distance of 550 yards.
8. Scroggie (steam)	Wool spinning -	5 1	1 in 2½	no heck -	occasionally.	580 yards often dry.
9. Lainshaw - -	Weir; no mill -	2 7	1 in 5½	- -	no - -	If a fresh, fish could ascend.
10. Ditto - - -	Ditto - - -	7 2	1 in 4, and perpendicular portion 1' 9".	- -	no - -	Perpendicular portion should be done away.
11. Ditto - - -	Corn - - -	5 0	1 in 2	none -	no - -	Dries the river bed 700 yards.
12. Stewarton - -	Waulk-mill - -	8 2	almost vertical.	- -	no - -	Not in any case could fish ascend.
13. Goosehill (steam)	Spindle manufactory.	—	—	—	—	
14. Robertland - -	Wool-mill.	—	—	—	—	

TRIBUTARY, No. 2.

GLAZIER BURN joins Annick Water about 2½ miles below Stewarton, and there are the following mills on it, viz:—

15. Bloak - -	Corn-mill.	—	—	—	—
16. Aiket - -	Corn-mill.	—	—	—	—
17. Ditto - -	Saw-mill.	—	—	—	—
18. Hapland - -	Wool-mill.	—	—	—	—
19. Old Mill - -	Corn.	—	—	—	—

CORSEHILL joins the Annack at head of Stewarton; on it there is

10. Corsehill - -	Corn.	—	—	—	—
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TRIBUTARY, No. 3.

MARNOCK WATER joins the Irvine a short distance below Kilmarnock: on it we visited

31. Saint Marnocks -	Flour and Corn - - - -	- - - -	- - - -	- - - -	- - - -
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The water is actually stinking during the summer with the sewerage, &c., of Kilmarnock, and no fish ascend the water. There are also dye works, &c., on the River Kilmarnock.

James M'Creadie.
J. J. M'Derment.
David Brown.

RIVER AYR is in length 32 miles, and has two important Tributaries, viz., the Coyle Burn and the Lugar Water; has Catchment Bason of square miles; it is about 300 feet wide at its Mouth: there are on it and its Tributaries upwan of 16 Dikes.

NAME of MILL.	Kind of Mill.	Average Height of Dike.	Slope of Dike.	Grating in Front of Wheel.	Could Fish get over Dike in average State of River?	SPECIAL REMARKS.
1. Nether Mills	- Corn, flour, and waulk	6 0 two dikes, 3' 6" and 2' 6" high.	1 in 2	yes -	yes -	Used to be a bad dike before subsidiary dike erected but should now be made model for all dam dikes in this county.
2. Over Mill	- Corn and flour	5 0	1 in 2	yes -	occasionally.	Often in summer the dike dries the bed of the river.
3.						
4. Dalmore	- Hone - - -	2 6	1 in 2	-	yes -	Wood on top of dike.
5. Stair	- Corn - - -	2 0	1 in 2½	-	yes -	Often in summer the bed of the river is dry under dike.
6. Barskimming	- Flour, corn, and saw	4 0	1 in 2½	-	yes -	Ditto - ditto.
7. Haugh (newly erected).	For finishing Scotch tweeds (waulking, dyeing, &c.)	- - -	- - -	-	- -	No dam dike, but a continuation of No. 9; it is intended not to run waste water to river, but to filter it, and let it off during freshes.
8. Haugh	- Corn, wheat, and saw	- - -	- - -	-	- -	Ditto - ditto.
9. Haugh	- Wool-mill - -	1 6	vertical	-	no -	From dike to foot of tail race, three quarters of a mile, dry in summer; a trap for salmon to go down the lade, on account of a plank fixed into dam at sluice.
10. Catrine Weir	- No mill - - -	4 6	vertical in two sections, 2' 10" and 1' 8"	-	no -	If a fresh, fish could ascend.
11. Catrine Works (steam).	Cotton - - -	Portion of top vertical, 1' 7", and other portion an easy slope, 5' 0".	1 in 6	-	no -	Not a drop of water coming over dike; two sluices in dike for cleaning dam; a mile of river-bed dry: fish could not get over this dike, except in extraordinary floods.
The GLENMUIR and BELLA BURNS join each other near to Lugar, and form the Lugar Water, which joins the Ayr about two miles below Ochiltree; the Glaisnock Water joins the Lugar near to Cumnock.						
12. Ochiltree	- Corn-mill - -	4 2	1 in 3½	-	yes -	Five hundred yards from head to foot of lade.
13. Mill Affleck	- Corn and saw-mill -	4 1	1 in 3½	-	yes.	
14. Green Mill	- Corn, flour, and saw	4 6	1 in 5	-	yes -	Timber at top, five inches high, and bottom, which is objectionable.
15. Cumnock	- Woollen-mill - -	2' 0" to 0' 6"	good slope	yes -	yes.	
16. Bella	- Corn, barley, and saw-mills.	5 6	1 in 2	yes -	no.	

The Coyle Water was not visited, as there is an impassable natural waterfall at Lundrum House, near to its junction with the Ayr.

James M'Creadie.
J. J. M'Dermont.
David Brown.

Doon flows into the Sea about two miles to the south of the Town of Ayr, and is in length 19 miles, and has a Catchment Bason of 204 square miles: there are on it 12 Dikes.

NAME of MILL.	Kind of Mill.	Average Height of Dike.	Slope of Dike.	Grating in Front of Wheel.	Could Fish get over Dike in average State of River ?	SPECIAL REMARKS.
oonfoot - -	Grain - - -	' "				
		4 6	1 in 3½	yes -	no - -	Fish could ascend when tide is up. River drained 293 yards.
lloway - -	Grain - - -	8 9	1 in 2½	2½ inch -	yes -	River bed drained for 398 yards.
utch - -	Grain - - -	2 0	1 in 2	4 inches -	no - -	If water, fish could ascend: river bed is drained 510 yards.
uchendrain -	Grain and saw -	2 9	1 in 3	not good	yes -	River bed is drained 427 yards.
onkwood -	Grain - - -	2 10	1 in 3½	- -	yes -	River bed is drained 400 yards; some wood on top should be removed.
alrymple -	Pirn - - -	3 10	1 in 3	1½ inch -	yes -	River bed is drained 220 yards.
assillis -	Grain and saw, and hook grinding.	2 0	1 in 6	2½ inch -	yes -	River bed is drained 490 yards.
arbieston -	Saw - - -	2 7	1 in 2½	5½ inch -	yes -	River bed is drained 253 yards.
arbieston -	Threshing - -	1 9	1 in 2	none -	yes.	
celdon -	Scouring, woollen, and hook grinding.	1 11	1 in 3	none -	yes -	River bed is drained 240 yards.
atna -	Grain and saw -	3 3	1 in 5	2½ inch -	yes -	No sluice at head of lade; river bed is drained 556 yards.
ounieston -	Pirn, cotton, thread, and spinning, with dyeing and bleaching.	2 6	1 in 5	2½ inch -	yes -	River bed is drained 376 yards. Log on the top of dike.

J. J. M'Dermont.
David Brown.

Note.—Mr. M'Creadie did not survey this river, and therefore does not subscribe this tabular view.

D. B.

GIRVAN flows into the Sea at Girvan; is in length 20 miles, and has a Catchment Bason of square miles; has a Tributary, called Pinwhapple: there are on it, and its Tributary, 9 Dikes.

NAME of MILL.	Kind of Mill.	Average Height of Dike.	Slope of Dike.	Grating in Front of Wheel.	Could Fish get over Dike in average State of River ?	SPECIAL REMARKS.
dge Mill -	Corn and flour -	' "				
		7 0	1 in 5	2½ inch -	no - -	Top has been raised 6 inches with turf. Fish are sure to take the mill lade in coming down. Mill takes all the water in summer. Fish could not ascend unless a good fresh.
ns Mill -	Corn, forge, and saw	2 6	1 in 2½	good -	no - -	Fish could ascend in a fresh.
lly -	Corn, flour, and saw -	3 10	1 in 4	good -	no - -	In the summer mill requires all the water, and dries the river-bed. Fish can ascend when a fresh.

River Girvan—continued.						
NAME of MILL.	Kind of Mill.	Average Height of Dike.	Slope of Dike.	Grating in Front of Wheel.	Could Fish get over Dike in average State of River?	SPECIAL REMARKS.
4. Kilkerran - -	Saw mills - -	4 8 in two heights of 3' 5" and 1' 3"	1 in 2½ and 1 in 3½ space between of 7' 0" level, but no pool.	no heck -	no - -	Slap nailed up, never opened; fish ascend when a fresh.
5. Kirkmichael -	Saw and bone crushing	6 1 in two heights of 3' 1" and 3' 0".	1 in 2½ and a level space between of 7' 6", but no pool.	5 inch. wide	no - -	No head sluice; in centre nailed up. It was not going, and was running down the slap lately made at 6' x 1' 3".
6. Kirkmichael -	Corn, flour, and barley	5 0	1 in 7	bad -	no - -	Very bad lade; fish sure to come down a perfect trap for fish. Fish could ascend when a fresh.
7. Linn - - -	- - - -	5 3	almost vertical.	no - -	no - -	Very objectionable; fish could ascend when a fresh.
8. Milton - -	Corn and saw - -	3 0	1 in 4	good -	yes.	
9. Straiton - -	Corn mill - -	2 6	1 in 2½	2 inch -	yes -	No sluice at head.
Pinwhapple Burn:						
10. Old Dailly - -	Corn.	—	—	—	—	

James M'Creadie.
J. J. M'Derment.
David Brown.

RIVER STINCHAR flows into the Sea at Ballantrae; is in length 24 miles; has some Tributaries, viz., the Tig, Duisk, and Gregg; has a Catchment Bason of square miles: there are on it Two Dikes.

NAME of MILL.	Kind of Mill.	Average Height of Dike.	Slope of Dike.	Grating in front of Wheel.	Could Fish get over Dike in average State of River?	SPECIAL REMARKS.
1. Ammond - -	Corn and barley -	2 6	1 in 5	no - -	yes -	Lade is a trap; takes all the water in summer; no gate; lade is nearly a mile; no head sluice; of river-bed dry joins the Duisk.
2. Pinclanty - -	Corn and woollen -	1 8	1 in 5	no heck -	yes -	Washes wool in the

James M'Creadie.
J. J. M'Derment.

The preceding Report, contained on this and the 6 preceding pages, by Messrs. M'Creadie and M'Derment, printed, and attested by me, clerk to the Ayrshire Salmon Fisheries Committee.

David Brown, Clerk

JAMES M'CREADIE, Tacksman of Five Fixed Net Salmon Net Stations on the Ayrshire Coast, and Three on the Wigtonshire Coast, and General Fish Merchant, Ayr,

Appendix C.

Have experience for the last 34 years in general fishing, and for the last 16 years particularly regarding salmon.

I have recently made inquiries throughout Ayrshire, and find the following to be the result, viz. :

1. That there were 29 stations for salmon fishing along the Ayrshire coast; but a few of these have been discontinued: the extent of the coast is about 70 miles; and that among these stations, bag and stake nets are fished per tabular statement, prepared by me, and annexed hereto; and that outrigging prevails to a very considerable extent, and is practised at almost every station.

2. I find that several of the present tacksman are in favour of the present unrestricted mode of fishing, wherever there is a charter for it; while others are of opinion that there should be some restriction of stations between river mouths: with the latter I am disposed to agree, as I consider the prevalence of so many stations along the coast between rivers destroy the fishings, I am of the opinion that the five stations at the mouths of the five rivers on the Ayrshire coast, are all that should be allowed; and farther, that no fixed nets should be placed within 500 yards of either side of any of these rivers, as the breed in the rivers at present could do no more than supply these stations which I have mentioned, as well as give the rivers themselves a fair supply, as being best entitled.

3. With regard to the system of outrigging, I am of opinion that it is clearly injurious and hurtful, as tending very seriously to divert the salmon from the natural course, or lead to the river; and I think that no fixed machinery, whether bag or stake nets, or both, should be allowed to be extended seaward farther than 160 yards.

4. I approve of the present general close time, on account of the facility with which it works on the Ayrshire coast, and in the rivers, with the exception of the River Stinchar, which should not open till first May, and close as at present; and of the Girvan, which should not open till 1st April, and close as at present. As an encouragement to the upper heritors in rivers, I would give leave for rod fishings, with fly only, till 14th October; but fish so caught should not be allowed to be sold.

5. I think that the size of the mesh of nets should be four inches; that is, the mesh to be two inches from knot to knot, and allowing four knots to each mesh.

6. I am in favour of a local Board for the counties of Renfrew, Ayr, Wigton, and Kirkcudbright, with summary jurisdiction, and inspectors.

7. I find that it is an unanimous feeling, and I strongly recommend it, that an assessment be levied on proprietors and tacksman of all net fishings along the coast and in rivers, for the protection of the rivers in close time; and, also, it is most important that the breeding fish and smolts be properly protected.

8. I am strongly of opinion that all cruives should be removed from the bed of rivers, although we have none in Ayrshire; also, that dam dikes, and other obstructions in rivers, should be made passable in the average state of the river, as is more fully described in my other report.

Generally speaking, sea fishings are very variable in amount, according to the state of wind and weather; but there are more fish being caught of late along the Ayrshire coast than there were 30 years ago; and, consequently, this increased take, which is the result of so many coast stations, must lessen the number of fish in the rivers. I consider it also plain, that bag and stake nets must be more deadly than "net and coble," because the former are at work night and day; the latter, with favourable weather, can only be at work, say 12 or 15 hours in the day.

*James M'Creadie.
David Brown.*

TABULAR View of the 29 Fixed Net Stations for SALMON FISHERIES along the 70 miles of Sea Coast of Ayrshire, as ascertained by Mr. James M'Creadie, Tacksman of Fixed Net and other Fishings along said Coast, and by Mr. David Brown, Clerk to the Ayrshire Salmon Fisheries Committee.—21 May 1860.

No. of Station.	N A M E of S T A T I O N.	With what kind and number of Fixed Nets is this Station fished, and to what extent is outrigging used?	What is the size, when wet, of the mesh of the nets used at this Station?	How far are the Fixed Nets placed from the nearest River?	Are the Fresh Water Pools at the mouth of the nearest River fished with Drag Nets, and what is the size of the mesh of the Drag Nets?	Landlord's Name.	Tenant's Name.	Rent.	SPECIAL REMARKS.
1.	Ballantrae	Six bag nets, set on different places, and outrigging to the extent of two nets.	3½ to 6 inches; mesh of lead-ers 10 inches.	About 200 yards	Yes, with nets of 3 inch mesh.	Earl of Stair	James M'Creadie	£. 150	
2.	Redburn	Two bag nets; outrigging to the extent of two nets.	Ditto	About 1½ miles from the Stinchar.	-	Mr. Kerr, of Chapel-donnan.	Ditto	16	
3.	Dorn	Two bag nets; outrigging to the extent of two nets.	Ditto	About 2 miles from the Stinchar.	-	Mr. Cathcart, of Knockdolian.	Ditto	5	
4.	Benane	Two bag nets; outrigging to the extent of two bag nets occasionally.	Ditto	About 2½ miles from the Stinchar.	-	Captain Kennedy, of Benane.	Dougan	12	
5.	Carleton or Lendal.	Three bag nets in various places, but generally with one bag net.	Ditto	About 6 miles from the Stinchar, and 6 miles from Girvan.	-	Sir John A. Cathcart, of Carleton.	Alexander Mitchell	40	
6.	Straid	Two bag nets; outrigging to the extent of one net.	Ditto	About 5½ miles from Girvan.	-	Duc de Coigny	Carson and Alexander	5	
7.	Armillan	Three bag nets; outrigging to the extent of two nets.	Ditto	About 2½ miles from Girvan.	-	Lord Ardmillan	Robert M'Cormel	5	
8.	Glendoune	Two bag nets; outrigging to the extent of two nets.	Ditto	About 1 mile from Girvan.	-	Mr. Young	Carson and Alexander	80	
9.	Bargany	One bag net	Ditto	About 500 yards from Girvan.	-	Duc de Coigny	Carson and Alexander		
10.	Girvan Mains	Five bag nets; outrigging to the extent of two nets.	Ditto	About 100 yards from River Girvan.	Yes, with drag nets of 3½ inch.	Right Hon. T. F. Kennedy, of Dunure.	Carson and Alexander	70	
11.	Chapeldonan	Two bag nets; outrigging to the extent of two nets.	Ditto	About 2 miles from Girvan.	-	Mr. Kerr	Robert M'Connell	4	
12.	Turnberry	Three bag nets; outrigging to the extent of two nets.	Ditto	About 5 miles from Girvan.	-	Lord Ailsa	M'Creadie and Glen-dinning.	25	
13.	Culzean	One bag net	Ditto	About 8 miles from Girvan.	-	Lord Ailsa	Lord Ailsa	-	
14.	Dunure	Three bag nets; no outrigging	Ditto	About 5½ miles from Doon.	-	T. F. Kennedy	James Glendinning	10	
15.	Fisherton	One bag net; not used this year	Ditto	4 miles from Doon	-	Mr. M'Hutcheon.	-	-	
16.	Brackney Bay	One bag net; not used this year	Ditto	3 miles from Doon	-	Mr. Crawford.	-	-	
17.	Doon	Six bag nets in different places; one stake net; outrigging to extent of three length bags from the stake.	Ditto	About ½ a mile from the Doon.	Yes, fished with net, of which mesh is 4 inches.	Lord Ailsa	A. Mitchell	286	

[illegible]

James M'Creddie.
David Brown.

What is contained on this and the preceding page, is a report upon the various Salmon Fishing Stations on the Coast of Ayrshire, showing their number, mode of fishing, &c., made by Mr. McCreddie, who was accompanied by myself, as clerk to the Ayrshire Salmon Fisheries Committee, with Mr. McCreddie's views in relation thereto; and which report I have carefully collated, and now attest.

David Brown, Clerk.

APPENDIX D.

RENTAL of the RIVER TAY and its TRIBUTARIES, Years 1828 to 1858 inclusive.—(Extracted

	1828.	1829.	1830.	1831.	1832.	1833.	1834.
	£. s.	£. s.	£. s.	£. s.	£. s.	£. s.	£. s.
Stanley Company (Mr. Howard)	55 -	55 -	35 -	35 -	35 -	35 -	35 -
Marquis of Breadalbane -	50 -	50 -	50 -	50 -	50 -	50 -	50 -
Richardson of Ballathie (Colonel R. Robertson).	100 -	100 -	100 -	100 -	100 -	100 -	52 10
Mackenzie of Delvine -	31 10	31 10	25 -	25 -	25 -	25 -	25 -
Stewart of Murthly -	25 -	25 -	25 -	25 -	25 -	25 -	25 -
Baroness Keith -	20 -	20 -	15 -	15 -	15 -	15 -	15 -
Duke of Athole -	90 -	70 -	80 -	85 -	80 -	50 -	55 -
Lord Willoughby -	210 -	210 -	262 -	232 -	232 -	59 -	160 -
Earl of Mansfield (including Taymount after 1842).	525 -	525 -	357 8	365 -	245 -	45 -	245 -
Lord Lynedoch (Mr. Graham, &c.)	105 -	105 -	116 -	187 -	187 -	187 -	95 -
Earl of Kinnoull -	910 -	910 -	485 -	525 -	525 -	525 -	200 -
Sir John Stewart Richardson of Pitfour, bart.	1,500 -	1,500 -	1,600 -	1,515 -	1,515 -	1,515 -	1,470 -
City of Perth -	1,300 -	1,300 -	1,300 -	1,305 -	1,305 -	1,305 -	1,305 -
Sir D. Moncreiffe (Sir T. Moncreiffe).	1,000 -	1,075 -	1,000 -	1,000 -	1,000 -	800 -	800 -
Hay of Seggieden -	180 -	180 -	180 -	180 -	185 -	185 -	185 -
Inchyra -	600 -	600 -	400 -	400 -	360 -	360 -	360 -
Lord Gray -	4,000 -	4,000 -	3,600 -	4,000 -	2,000 -	2,500 -	2,700 -
Paterson of Carpow -	250 -	250 -	300 -	300 -	295 -	295 -	295 -
Hay of Mugdrum -	180 -	180 -	180 -	180 -	120 -	120 -	100 -
Allen of Errol, and Miss Hay Morison.	123 -	123 -	123 -	102 -	102 -	102 -	95 -
Earl of Wemyss -	485 -	485 -	660 -	660 -	660 -	660 -	450 -
Murie -	20 -	20 -	20 -	20 -	20 -	20 -	20 -
Earl of Dunmore, for Taymount	120 -	120 -	155 -	155 -	155 -	125 -	125 -
Lord Zetland -	70 -	70 -	70 -	70 -	70 -	70 -	70 -
Wedderburn of Birkhill -	50 -	50 -	50 -	50 -	50 -	50 -	50 -
Earl of Moray (Hon. A. Stewart of Balmerino).	25 -	25 -	25 -	20 -	20 -	20 -	20 -
Mr. Morison of Naughton -	50 -	50 -	50 -	30 -	30 -	30 -	30 -
Stewart of Woodhaven and St. Fort.	70 -	70 -	70 -	70 -	70 -	70 -	75 -
Hunter of Blackness -	30 -	30 -	30 -	10 -	10 -	10 -	10 -
Town of Dundee -	300 -	300 -	300 -	220 -	220 -	112 -	124 -
Lord Douglas -	10 -	14 -	14 -	10 -	10 -	10 -	15 -
General Hunter (Mr. Clayhill's)	210 -	125 -	125 -	75 -	75 -	30 -	30 -
Colonel Fotheringham (John Dunn).	230 -	230 -	230 -	200 -	200 -	160 -	150 -
Lord Panmure -	420 -	420 -	420 -	660 -	640 -	525 -	550 -
Mr. Keir of Grange -	15 -	15 -	30 -	40 -	40 -	40 -	40 -
Dalglish of Scotsraig (Captain Maitland Dougall).	900 -	900 -	900 -	600 -	600 -	600 -	600 -
Leuchars and Earlsball, on coast	100 -	100 -	100 -	100 -	100 -	100 -	100 -
Berry of Tayfield -	-	-	-	-	-	-	-
Seaside -	-	-	-	-	-	-	-
Castlehuntly -	-	-	-	-	-	-	-
Dupplin Cruives -	16 -	16 -	85 -	85 -	85 -	85 -	18 -
Oliphant of Condie -	6 -	6 -	6 -	6 -	6 -	4 -	5 -
Lord Ruthven (Baroness Ruthven)	15 -	15 -	15 -	15 -	15 -	15 -	5 -
Dumbarney -	5 -	1 -	1 -	1 -	1 -	1 -	1 -
Sir D. Moncreiffe (Sir T. Moncreiffe), in Earn.	90 -	75 -	75 -	75 -	75 -	66 -	66 -
P. S. Keir, esq. -	15 -	15 -	15 -	8 -	8 -	8 -	8 -
Carey Boat -	10 -	10 -	10 -	10 -	10 -	10 -	10 -
M'Pherson of Blairgowrie	16 -	16 -	16 -	16 -	16 -	16 -	16 -
Lord Wharnccliffe -	20 -	20 -	20 -	20 -	20 -	20 -	20 -
Sir W. Forbes -	15 -	15 -	15 -	15 -	15 -	15 -	15 -
Mrs. Wood -	7 -	7 -	7 -	7 -	7 -	7 -	7 -
	14,574 10	14,529 10	13,747 8	13,874 -	11,629 -	11,577 -	10,907 10

APPENDIX (D.)

from the Minute Books and Assessment Rolls of the Proprietors of Salmon Fishings in the Tay).

1835.	1836.	1837.	1838.	1839.	1840.	1841.	1842.	1843.
£. s.	£. s.	£. s.	£. s.	£. s.	£. s.	£. s.	£. s.	£. s.
35 -	35 -	35 -	35 -	35 -	25 -	25 -	25 -	25 -
50 -	50 -	50 -	50 -	50 -	50 -	50 -	50 -	50 -
52 10	50 -	60 -	70 -	70 -	70 -	50 -	85 -	85 -
25 -	25 -	25 -	25 -	25 -	25 -	25 -	25 -	25 -
25 -	25 -	25 -	25 -	25 -	25 -	25 -	25 -	5 5
15 -	15 -	15 -	20 -	20 -	20 -	20 -	20 -	20 -
50 -	50 -	50 -	50 -	30 -	80 -	75 5	75 5	75 5
150 -	150 -	150 -	186 -	186 -	186 -	140 -	150 -	167 -
245 -	152 10	150 6	180 6	179 -	120 -	120 -	265 -	298 -
68 -	65 -	65 -	81 -	81 -	81 -	60 -	60 -	60 -
190 -	200 -	220 -	220 -	220 -	255 -	255 -	255 -	255 -
1,550 -	1,500 -	1,500 -	1,500 -	1,500 -	1,470 -	1,470 -	1,050 -	1,150 -
1,305 -	824 -	824 -	824 -	1,000 -	1,000 -	1,000 -	1,000 -	1,000 -
800 -	800 -	800 -	800 -	800 -	800 -	800 -	800 -	800 -
195 -	195 -	210 -	210 -	210 -	95 -	305 -	370 -	370 -
830 -	360 -	386 -	386 -	386 -	650 -	650 -	650 -	660 -
2,700 -	2,700 -	2,700 -	2,700 -	2,700 -	3,000 -	3,000 -	3,000 -	3,000 -
210 -	210 -	210 -	287 -	288 -	288 -	121 -	73 10	73 10
90 -	100 -	110 -	120 -	167 -	167 -	167 -	190 5	190 5
91 -	91 -	93 -	101 -	101 -	101 -	101 -	101 -	260 -
490 -	490 -	490 -	490 -	490 -	600 -	500 -	550 -	550 -
20 -	20 -	20 -	20 -	20 -	20 -	20 -	20 -	20 -
114 -	114 -	140 -	140 -	140 -	185 -	140 -	Lord Mansfield.	—
70 -	70 -	62 -	62 -	45 -	45 -	45 -	45 -	45 -
50 -	50 -	50 -	50 -	50 -	50 -	50 -	50 -	50 -
20 -	20 -	20 -	20 -	10 -	10 -	10 -	10 -	5 -
30 -	30 -	30 -	30 -	30 -	30 -	30 -	30 -	30 -
75 -	75 -	75 -	75 -	50 -	40 -	40 -	40 -	40 -
10 -	10 -	10 -	10 -	10 -	10 -	10 -	10 -	5 -
124 -	90 -	90 -	90 -	70 -	70 -	70 -	61 -	04 -
15 -	15 -	5 -	5 -	5 -	5 -	5 -	5 -	5 -
30 -	30 -	25 -	25 -	25 -	25 -	25 -	25 -	25 -
150 -	150 -	155 -	155 -	155 -	155 -	155 -	90 -	90 -
550 -	550 -	430 -	430 -	430 -	430 -	430 -	166 -	166 -
40 -	40 -	10 -	10 -	10 -	10 -	10 -	8 -	8 -
600 -	600 -	567 -	567 -	567 -	567 -	567 -	567 -	567 -
100 -	100 -	100 -	100 -	100 -	100 -	100 -	100 -	100 -
-	-	33 -	33 -	33 -	33 -	33 -	23 15	23 15
-	-	-	-	12 -	12 -	12 -	12 -	12 -
18 -	18 -	18 -	18 -	18 -	18 -	18 -	18 -	18 -
5 -	5 -	5 -	5 -	5 -	5 -	5 -	5 -	5 -
5 -	5 -	5 -	5 -	5 -	5 -	5 -	5 -	5 -
1 -	1 -	1 -	1 -	1 -	1 -	1 -	1 -	1 -
60 -	60 -	60 -	60 -	60 -	60 -	60 -	60 -	60 -
5 -	5 -	5 -	5 -	5 -	5 -	5 -	5 -	5 -
10 -	8 -	8 -	8 -	8 -	8 -	8 -	8 -	8 -
16 -	16 -	16 -	16 -	16 -	16 -	16 -	16 -	16 -
20 -	20 -	20 -	20 -	20 -	20 -	20 -	20 -	9 10
15 -	15 -	15 -	15 -	15 -	15 -	15 -	15 -	15 -
7 -	7 -	7 -	—	—	—	—	—	—
10,856 10	10,211 10	10,150 6	10,285 6	10,498 -	11,058 -	10,864 5	10,235 15	10,512 5

RENTAL of the River Tay and its Tributaries, Years 1828 to 1858 inclusive.—(Extracted from the Minutes)

	1844.	1845.	1846.	1847.	1848.	1849.	1850.
	£. s.	£. s.	£. s.	£. s.	£. s. d.	£. s.	£. s.
Stanley Company (Mr. Howard)	25 -	25 -	25 -	25 -	20 - -	20 -	20 -
Marquess of Breadalbane -	50 -	50 -	50 -	50 -	50 - -	50 -	50 -
Richardson of Ballathie (Col. R. Robertson).	85 -	85 -	85 -	85 -	77 - -	77 -	50 -
Mackenzie of Delvine -	25 -	25 -	25 -	25 -	25 - -	25 -	25 -
Stewart of Murthly -	5 -	5 -	5 -	5 -	5 - -	5 -	5 -
Baroness Keith -	20 -	20 -	20 -	20 -	20 - -	20 -	20 -
Duke of Athole -	75 5	75 5	70 5	70 5	65 5 -	65 5	60 5
Lord Willoughby -	160 -	191 -	191 -	191 -	146 - -	161 -	161 -
Earl of Mansfield (including Taymount after 1842).	278 -	245 -	220 -	235 -	235 - -	235 -	235 -
Lord Lynedoch (Mr. Graham, &c.)	60 -	60 -	60 -	73 -	79 - -	79 -	53 -
Earl of Kinnoull -	255 -	255 -	155 -	218 -	218 - -	218 -	105 -
Sir John Stewart Richardson of Pitfour, Bart.	980 -	757 -	757 -	1,030 -	1,055 - -	945 -	878 -
City of Perth -	1,000 -	1,000 -	1,000 -	1,055 -	1,055 - -	1,055 -	697 -
Sir D. Moncreiffe (Sir T. Moncreiffe).	800 -	800 -	400 -	550 -	550 - -	450 -	450 -
Hay of Seggieden -	370 -	381 -	381 -	381 -	577 - -	400 -	380 -
Inchyra -	660 -	660 -	660 -	915 -	915 - -	625 -	625 -
Lord Gray -	3,200 -	3,000 -	2,800 -	3,000 -	3,000 - -	2,570 -	2,293 -
Paterson of Carpow -	73 10	73 10	73 10	50 -	50 - -	50 -	50 -
Hay of Mugdrum -	190 5	190 5	190 5	371 10	377 10 -	382 -	346 -
Allen of Errol and Miss Hay Morison.	236 -	212 -	180 -	318 -	337 15 6	297 11	253 6
Earl of Wemyss -	550 -	1,369 -	1,369 -	1,369 -	1,802 - -	1,692 -	1,436 -
Murie -	20 -	20 -	20 -	20 -	20 - -	20 -	15 -
Earl of Dunmore, for Taymount	-	-	-	-	-	-	-
Lord Zetland -	45 -	45 -	45 -	45 -	105 - -	100 -	100 -
Wedderburn of Birkhill -	50 -	50 -	50 -	50 -	71 - -	71 -	71 -
Earl of Moray (Hon. A. Stewart of Balmerino) -	5 -	5 -	5 -	5 -	5 - -	5 -	5 -
Mrs. Morison of Naughton -	30 -	30 -	30 -	30 -	9 - -	9 -	9 -
Stewart of Woodhaven, and St. Fort.	40 -	40 -	40 -	40 -	25 - -	25 -	25 -
Hunter of Blackness -	9 -	9 -	9 -	9 -	5 - -	5 -	5 -
Town of Dundee -	60 -	60 -	60 -	60 -	60 - -	45 -	45 -
Lord Douglas -	5 -	5 -	5 -	5 -	5 - -	5 -	5 -
General Hunter (Mr. Clayhill's)	8 -	8 -	-	-	-	-	-
Colonel Fotheringham (John Dunn).	100 -	100 -	63 -	63 -	63 - -	63 -	63 -
Lord Panmure -	255 15	270 -	270 -	270 -	255 - -	255 -	255 -
Mr. Keir of Grange -	8 -	8 -	8 -	8 -	8 - -	8 -	8 -
Dalglish of Scotsraig (Captain Maitland Dougall).	380 -	380 -	380 -	380 -	380 - -	300 -	300 -
Leuchars and Earlsall, on coast	100 -	100 -	220 -	220 -	220 - -	220 -	220 -
Berry of Tayfield -	23 15	23 15	23 15	23 15	20 - -	20 -	16 -
Seaside -	12 -	12 -	12 -	12 -	12 - -	12 -	24 -
Castlehuntly -	-	-	-	-	-	-	-
Dupplin Cruives -	18 -	18 -	18 -	20 -	20 - -	20 -	20 -
Oliphant of Condie -	5 -	5 -	5 -	5 -	5 - -	5 -	5 -
Lord Ruthven (Baroness Ruthven).	5 -	5 -	5 -	5 -	5 - -	5 -	5 -
Dumbarney -	1 -	1 -	1 -	1 -	1 - -	1 -	2 -
Sir D. Moncreiffe (Sir T. Moncreiffe), in Earn.	60 -	60 -	60 -	60 -	60 - -	60 -	60 -
P. S. Keir, Esq. -	5 -	5 -	5 -	5 -	8 - -	8 -	8 -
Carey Boat -	8 -	8 -	8 -	8 -	8 - -	8 -	5 -
M'Pherson of Blairgowrie -	16 -	16 -	16 -	16 -	4 - -	4 -	4 -
Lord Wharndcliffe -	9 -	9 -	9 -	9 -	9 - -	9 -	9 -
Sir W. Forbes -	15 -	15 -	15 -	15 -	15 - -	15 -	15 -
Mrs. Wood -	-	-	-	-	-	-	-
	10,386 10	10,751 15	10,099 15	11,421 10	12,057 10 6	10,719 16	9,491 11

Books and Assessment Rolls of the Proprietors of Salmon Fishings in the Tay)—*continued.*

1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
20 - -	20 - -	20 - -	20 - -	20 - -	20 - -	20 - -	20 - -
50 - -	50 - -	50 - -	50 - -	50 - -	50 - -	50 - -	50 - -
50 - -	45 - -	50 - -	35 - -	40 - -	40 - -	50 - -	60 - -
25 - -	15 - -	15 - -	15 - -	15 - -	12 - -	12 - -	12 - -
5 - -	5 - -	5 - -	5 - -	5 - -	5 - -	5 - -	5 12 -
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161 - -	154 - -	125 - -	139 - -	159 - -	145 - -	150 - -	160 - -
207 - -	180 - -	187 5 -	187 5 -	187 5 -	166 - -	154 - -	180 - -
69 5 -	69 - -	45 - -	47 - -	60 - -	63 - -	61 - -	61 - -
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932 - -	647 - -	647 - -	666 - -	966 - -	1,063 - -	1,071 - -	1,437 - -
1,023 - -	822 - -	822 - -	822 - -	822 - -	870 - -	870 - -	870 - -
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352 - -	293 - -	421 - -	643 10 -	686 - -	758 - -	758 - -	758 - -
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9,530 - -	7,978 5 -	8,715 17 6	9,269 6 5	9,977 13 5	10,199 10 4	10,772 - 5	11,487 2 5

APPENDIX E.

PAPERS delivered in by *William Joshua Ffennell, Esq.*, 15 June 1860.

Appendix E.

INSTRUCTIONS for COAST GUARDS, &c. &c., with Extracts from the Acts of Parliament relating to IRISH FISHERIES; compiled by T. F. BRADY, Esq., Fishery Department, Office of Public Works.

5 & 6 Vict. c. 106; 7 & 8 Vict. c. 108; 8 & 9 Vict. c. 108; 9 & 10 Vict. c. 114; 11 & 12 Vict. c. 92; and 13 & 14 Vict. c. 88.

THE following extracts from the Acts of Parliament in force in Ireland for the regulation and protection of the fisheries, are published with a view to the guidance of the coast guards in the discharge of their duties, and pointing out the particular powers they possess under the statutes, which, being extensive, should at all times be carried out temperately, yet firmly and strictly.

There are some provisions of the laws referred to in these instructions applying to the fresh-water portions of rivers and lakes which may not come under the immediate cognizance of the coast guards, being remote from their stations. They are, however, included, in case their aid in some instances might be required.

Particular attention should be paid to the enforcement of a strict observance of the close seasons, both annual and weekly, amongst all classes of fishermen, and with every description of fishing engine.

Note.—In case of seizure of any net or other engine by any person duly authorised to seize same, care should be taken that such net or other engine should be brought before the magistrates at the next sitting of the petty sessions court, as directed by the 103d section of the 5th & 6th Vict. c. 106; see page 428.

No power under the Fishery Laws to seize boats.

COAST GUARDS' POWERS.

5 & 6 Vict. c. 106, s. 86.
Officers and men of Her Majesty's cruisers, and officers and men of coast-guard service empowered to enforce provisions of Act.

Coast guards empowered to act as constables.

5 & 6 Vict. c. 106, s. 87.
Offenders may be apprehended if they refuse to tell their names.

But not to be detained in custody longer than 24 hours.

1. It shall be lawful for such officers and petty officers belonging to the cruisers of Her Majesty's navy, and for such officers and men of the coast guard stations as shall be thereunto authorised by the Commissioners of Her Majesty's Customs, at such times and in all such places, and subject to such directions and regulations as the said Commissioners of Customs shall from time to time think fit to prescribe, to go on board any vessel employed in fishing, and examine the certificate of registry and nets of such vessel, and whether the regulations of Act have been complied with, and whether the master and other persons on board such vessel are carrying on the said fishery in the manner required by law, and to seize any illegal nets or engines, or any nets or engines used contrary to the provisions of Act, or to any of the orders, regulations, or bye-laws made by the Commissioners; and lawful for the officers and men employed in the coast guard service in Ireland to execute for the purposes of Act on sea or on land the warrants of any justice, as fully and effectually as any person authorised and empowered to execute warrants of any justice in Ireland, may now execute the same on land within their respective districts; and to do all such other acts on sea or land in relation to the preservation of peace among persons engaged in fishing, and the enforcement of the provisions of Act as any constable may lawfully do within his jurisdiction.

2. When any person shall be found at sea, or on rivers, lakes, or other waters, or on land, offending against any of the provisions of Act by the use of any illegal net, engine, or device whatsoever for the taking of fish, or by the use of any net, engine, or device prohibited at such time, or in any other manner, it shall be lawful for any officer or person empowered to enforce the provisions of Act, or for any person interested in the fishery in which such illegal act may be committed, to require the person so found offending forthwith to desist from such offence, and also to tell his christian name, surname, and place of abode; and in case such person shall after being so required refuse to tell his real name or place of abode, or shall give such a general description of his place of abode as shall be illusory, for the purpose of discovery, or shall wilfully continue such offence, it shall be lawful for the officer or person so requiring as aforesaid, and also for any person acting by his order and in his aid, to apprehend such offender, and to convey him, or cause him to be conveyed, as soon as conveniently may be, before a justice of the peace, to be dealt with according to law: Provided always, that no person so apprehended shall, on any pretence whatsoever, be detained for a longer period than 24 hours from the time of his apprehension before he shall be brought before some justice of the peace; and that if he cannot, on account of the absence or distance of the residence of any such justice of the peace, or owing to any other reasonable cause, be brought before a justice of the peace within such 12 hours as aforesaid, then the person so apprehended shall be discharged, but may, nevertheless, be proceeded against for his offence by summons or warrant, as if no such apprehension had taken place.

3. Where

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3. Where any persons, to the number of three or more together, shall be found by any officer of Her Majesty's navy, or of the coast guard, or any water bailiff, or peace officer, by violence, intimidation, or menace, impeding or obstructing, or attempting to impede or obstruct, any other person or persons in the lawful prosecution of any fishery, it shall be lawful for such officer of the navy, or coast guard, or water bailiff, or peace officer so requiring, and also for any person acting by his order or in his aid, to apprehend such offenders, and to convey them before a justice of peace, to be dealt with according to law; and every person so offending by such violence, intimidation, or menace as aforesaid, and every person then and there aiding or abetting such offender, shall, upon being convicted thereof, forfeit and pay for every such offence such penalty, not exceeding Twenty pounds, as to the convicting justice shall seem meet, together with the costs of the conviction, which said penalty shall be in addition to and independent of any other penalty to which any such person may be liable for any other offence against Act.

5 & 6 Vict. c. 106,
s. 88.
Penalty on persons
using violence.

NETS.

4. No net or other engine covered with canvas, hide, or other material, by which unsizable and young fish may be taken or destroyed, shall be used on the sea coast, or within any estuary, except for the purpose of dredging for shell fish; penalty not exceeding Ten pounds, and forfeiture of net.

5 & 6 Vict. c. 106,
s. 6.
Regulations as to
sea nets.

5. No person shall at any time, between sunrise and sunset, set, either in the sea or within the tideway in any estuary, any sea net for the catching of herrings, or any trammel net, or leave any drag or other net in the water between sunrise and sunset, except stake or fixed nets for the catching of salmon, and save also, seines or drift nets for pilchards or herrings, provided such stake or fixed nets, and such seines or drift nets, be used at such times and places as may not be prohibited by any bye-law; penalty not exceeding Ten pounds, and forfeiture of net.

5 & 6 Vict. c. 106,
s. 7.
No herring or other
nets, save as herein
provided, to be shot
or left floating in
the day-time.
7 & 8 Vict. c. 108,
s. 7.

6. Every person who shall, between sunset and sunrise, have set, either in the sea or within the tideway in any estuary, any such net as is prohibited from being left set, or in the water between sunrise and sunset, shall before sunrise haul up and remove such net or nets; penalty not exceeding Five pounds, and forfeiture of net. Proviso as to being prevented by storm or stress of weather.

5 & 6 Vict. c. 106,
s. 8.
Penalty for not
hauling up nets.

7. Every person who shall use any trawl or trammel net at any season, or any place, either in the sea or within the tideway in any estuary, when or where the use of the same shall have been prohibited by any bye-law, shall forfeit such net, and pay a penalty not exceeding Twenty pounds.

s. 9.
Trawl or trammel
nets.

8. No person shall set any net at or across the entrance of any bay or estuary, in any place, or at any time, which shall be prohibited by any bye-law; penalty not exceeding Five pounds.

5 & 6 Vict. c. 106,
s. 10.
Nets or lines not to
be set or laid con-
trary to bye-laws.

9. No stake weir, stake net, nor any leader, outrigger, or other work of any kind shall be placed, or erected, or suffered to remain in such a manner as that it shall extend to a greater distance than from high water to low water mark of spring tides, save and except in the case of ebb and flood weirs, commonly called head weirs, not fished by means of a fixed net; nor shall any such weir be so constructed as to be capable of taking young or unsizable fish; and the nets made use of in the formation and construction of such stake nets, and of the leaders of all bag, or other fixed nets, shall be extended evenly, in such a manner that the meshes shall be stretched to their full opening; and all bag nets shall be so placed and erected as that the netting of the leaders can be raised and kept out of water, and that clear openings can be made in all stake nets, &c.; penalty not exceeding Ten pounds.

5 & 6 Vict. c. 106,
s. 26.
Stake nets not to
extend further than
from high to low
water mark.

Leaders of bag nets
to be raised.

10. For Bye-laws, *see* pages 432, 433.

OYSTER FISHERIES.

11. Not lawful to dredge for, take, catch, destroy, or have in possession, sell or buy, any oysters or oyster brood between first May and first September in any year; penalty Five pounds.

5 & 6 Vict. c. 106,
ss. 32, 36.
Close season for
oysters.

12. Any person stealing oysters or oyster brood from any oyster bed or laying, being the exclusive property of any person, or persons, and sufficiently marked out and known as such, or from any oyster bed or laying, formed or planted with the permission, in writing, of the Commissioners, shall be deemed guilty of larceny, and be punished accordingly.

5 & 6 Vict. c. 106,
s. 11.
Stealing oysters.
8 & 9 Vict. c. 108,
ss. 18 & 19.
13 & 14 Vict. c. 88,
ss. 41 & 42.

13. Any person unlawfully and wilfully using any dredge or net, instrument or engine, within limits of any oyster bed, being the exclusive property of any other person, and sufficiently marked out and known as such, for purpose of taking oysters or oyster brood, although none shall be actually taken, or dragging upon the ground or soil of such fishery, shall be deemed guilty of misdemeanor, and be punished accordingly. Nothing to prevent any person from fishing for any floating fish within the limits of any oyster fishery with any net, &c. adapted for taking floating fish only.

5 & Vict. c. 106,
s. 12.
Unlawfully using
dredges within
limits of oyster
fisheries.
Floating fish.

(135—APP.)

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14. Note.—

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14. *Note.*—Permission given to dredge for oysters, during month of May in each year, between Wicklow Head and Raven Point, north of Wexford Harbour.
See Bye-laws, page 432.

BALLAST.

5 & 6 Vict. s. 106,
s. 14.
Discharging ballast
in improper places.

15. No person shall throw out, or unlade, from any vessel the ballast thereof, or any part thereof, within any estuary, harbour, or place, unless where the same may be allowed by the Commissioners, or by the local regulations of such harbour or place; penalty not exceeding Ten pounds.

REGISTRY OF FISHING VESSELS.

Registry of vessels.
5 & 6 Vict. c. 106,
s. 16.

16. At such of the coast guard stations and custom-house offices within such districts as the Commissioners shall appoint, subject to the consent and approbation of the Commissioners of Her Majesty's Customs, there shall be kept by such officer as the Commissioners may appoint, in books to be kept for that purpose, a registry of all vessels engaged in fishing, together with the names of the owners of such vessels, and of the ports to which they may belong, and the number of men usually employed in each such vessel. And the owners of such vessels are required to have registered their names, and the names of their vessels, and the ports to which they belong, and the number of their men. The owner of each vessel shall be furnished by the registering officer with a certificate of such registry, and pay for such certificate a sum not exceeding One shilling. And the number, mark, or letter, which shall be assigned to each vessel by the registering officer, together with the name of the vessel, of the owner, or some one of the owners, and of the port to which such vessel belongs, shall be painted on the stern of such vessel, and such number, and mark, or letter, shall be also painted on the sails and bows, or quarters, and on the buoys attached to the nets used with such vessel, &c., in such manner as the Commissioners shall direct; penalty not exceeding Five pounds. Provision as to vessels not permanently engaged in fishing.

ASSAULTING OR RESISTING.

5 & 6 Vict. c. 106,
s. 90.
Penalty on
opposing or
assaulting.

17. If any person shall assault, resist, or obstruct any of the Commissioners, or any person acting by their authority, or any officer of Her Majesty's navy, or coast guard, or any person acting under him or them, or any water bailiff in the execution of any of the powers conferred on him by Act, or by any rule, order, or bye-law to be made in pursuance of Act, or if the master of any fishing vessel shall refuse to produce his certificate of registry when thereunto required, every person so offending shall for every such offence forfeit and pay any sum not exceeding Ten pounds.

CLOSE SEASONS.

18. For annual close seasons, see Schedule, page 435.

5 & 6 Vict. c. 106,
s. 36.
Fishing for salmon
or trout in close
season.
Having in
possession.
13 & 14 Vict. c. 88,
s. 35.
Weirs.

19. Any person taking or fishing for, or aiding or assisting in taking or fishing for salmon or trout during the close season, is liable to a penalty of any sum not exceeding Ten pounds for every such offence, and forfeiture of fish and engine by which the same may have been taken. And any person buying, selling, or exposing for sale, or having in his possession any salmon or trout, or part thereof, so caught in the close time, shall forfeit such fish and a sum not exceeding Two pounds for each fish; and having in possession shall be *prima facie* evidence of the fish having been caught in close season. And any person using nets or other modes of catching fish in any weir, shall be liable to a penalty of Ten pounds, and forfeiture of such net, &c.; and proof that such person is the occupier of weir shall be *prima facie* evidence that such nets were set by him. And any person dredging for, taking, catching or destroying, having in his possession, selling, or buying any oysters or oyster brood during the close season for oysters, shall forfeit such oysters, and pay a sum not exceeding Five pounds. Minimum of penalties in any of the foregoing cases, Ten shillings.

Oysters.
11 & 12 Vict. c. 92,
s. 42.

13 & 14 Vict. c. 88,
s. 35.
Having in
possession part of a
salmon or trout
during close
season.

20. Any person in whose possession any part or portion of a salmon or trout shall be found or exposed for sale during the close season shall be in the like cases subject to like penalties and forfeitures; and all persons empowered to enforce the provisions of Act, shall be and are empowered to seize all such salmon or trout, or any such portion thereof as aforesaid, when so found in the possession of any person, or exposed for sale during the close season.

5 & 6 Vict. c. 106,
s. 37.
All machinery,
nets, and tackling
for the taking of
of salmon, &c. in
salmon weirs or
other fixed engines
shall be wholly
removed during
close season.

21. During the close season for salmon every occupier or farmer of any fishery shall remove and carry away, or cause to be removed and carried away, from such fishery, and the weirs, dikes, and dams connected therewith, and from the river, or stream in which such weirs, dikes, or dams are placed, and from the landing places adjoining thereto, all and every engine, spear, hand net, or other net, inscale, hecks, and rails of all cruives, boxes or cribs, used for the purpose of taking or killing salmon, and the tops of such cruives, boxes, or cribs, and all planks and temporary engines and fixtures used and required for the fishing of the same; and that all and every obstruction to the free passage of the fish in and through each and every such cruive, crib, or box be wholly removed and carried away within Thirty-six hours after the expiration of the open season, and shall not be again placed or allowed to be placed or to remain therein until within Thirty six hours of the commencement of such open season; and in case any such occupier or farmer shall omit or neglect so to remove all and every such net, engine, or other tackle, and every contrivance,

Penalty for neglect.

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contrivance, or obstruction as aforesaid, he shall forfeit all such nets, engines or other tackle or contrivance as aforesaid, and shall for every such offence forfeit and pay a sum not exceeding Fifty pounds, and shall also for every day during which he shall suffer such obstacles and other things to remain and be unremoved beyond the period prescribed by Act, pay a sum not exceeding Five pounds: Provided always, that nothing shall be construed to render liable to any penalty any person who shall be prevented by floods, storm, or stress of weather from removing any such net, engine, or tackle during the continuance of such prevention; and provided also, that the proprietor or farmer of any salmon weir, now legally entitled by patent, charter, or otherwise, to a right of fishing for eels in such weir, and who has exercised such right previous to the passing of Act, shall not be liable to any penalty on account of his placing, hanging, or using, coghills or eel nets or baskets in the eyes or gaps of such weir, if such coghills or eel nets or baskets be only used in conformity with the provisions of Act, and be only hung in four-fifths in number of the eyes or gaps of such weir, and the other one-fifth of such eyes or gaps, in addition to the Queen's or free pass, be kept open and unobstructed for the free passage of all kinds of fish; and provided also, that nothing herein contained shall be construed to exempt such proprietor or farmer from liability to the penalties by Act directed in case any salmon or trout shall be killed, taken, or caught in such weir during close season, or in case he shall not keep open and unobstructed, according to the provisions of Act, one-fifth in number, as aforesaid, of the eyes or gaps of the said weir.

Proviso.

Storm, stress of weather, &c.

22. During the close season for salmon, every proprietor, lessee, or other person who shall be engaged in fishing for salmon by means of fixed engines, shall remove and carry away, or cause to be removed and carried away, from the poles or fixtures to which they shall be attached, all stake-nets, bag-nets, sole-nets, fly-nets, or other devices or engines used for the purpose of taking salmon, except where such nets, devices or engines shall be formed of wood, iron, copper, or other rigid substance, in which case a clear opening of four feet in width shall be made and maintained in and completely through the pouches, traps or chambers, of all such nets, devices or engines, from the top to the bottom of such pouches, traps or chambers, and in the eyes of flood and ebb weirs, commonly called head weirs, so as to allow the free passage of salmon and other fish through the same, and effectually to prevent the catching or taking of any fish therein; and in case any such person shall omit or neglect to remove or carry away all such nets and engines, or, as the case may be, to make and maintain free from all obstruction such openings as aforesaid, during the times aforesaid, he shall forfeit all such nets or engines, and shall forfeit and pay a sum not exceeding Fifty pounds; and shall also for every day during which such nets or engines shall remain and be unremoved beyond the period prescribed by Act, forfeit and pay a sum not exceeding Five pounds: Provided always, that nothing herein contained shall be construed to render liable to any penalty any person who shall be prevented by storm or stress of weather from removing such nets or engines, or making such openings as aforesaid, during the continuance of such prevention. Saving for weirs licensed by Commissioners to catch white sea fish, sec. 39.

5 & 6 Vict. c. 106, s. 38. All bag, sole, fly, or stake-nets and other engines for catching salmon in the tideway shall be removed during close season.

Forfeiture.

Penalty.

Stress of weather.

23. Every proprietor, lessee or other person who shall be engaged in fishing for salmon by means of nets of any kind, shall remove and carry them away during the yearly close season under a penalty of not less than Two pounds, and forfeiture of nets.

13 & 14 Vict. c. 88, s. 34. Nets to be removed from banks of rivers during close season.

WEEKLY CLOSE TIME.

24. Weekly close time in inland lakes and rivers, between six of the clock on Saturday evening and six of the clock on Monday morning. In the sea, or estuaries or tideways, between the low water next in point of time, before six of the clock on Saturday night, and the low water next in point of time, before six of the clock on Monday morning.

Weekly.

5 & 6 Vict. c. 106, s. 40; and 13 & 14 Vict. c. 88, s. 38.

25. All fishing of every description (with rod and line only excepted) prohibited during weekly close season; Queen's share to be opened in all fixed nets, &c., and leaders of all nets to be removed.

26. In tideway from the low water next in point of time before six of the clock on Saturday night, and the low water next in point of time before six of the clock on Monday morning, and during such time in each stake, flood, ebb or head weir and stake net a clear opening of at least four feet in width shall be made, and kept from obstruction in the pouches, traps, chambers, or eyes of the same from bottom to top, so as effectually to allow of the free passage of salmon and other fish, and the netting of the leader of every bag, fly, sole or other fixed net shall be raised and kept out of the water, and that in all rivers, lakes and tideways, all other nets and baskets whatsoever, except those used for the taking of eels, shall be wholly removed and taken out of the water for the space of time above mentioned; and the inscales, or gates, and rails or frame work of all such cribs, boxes or cruives for the catching of salmon, &c., shall be removed out of, or opened in each such crib, &c., in every salmon or other weir where a salmon may be caught, in such a manner that a clear opening of not less than four feet in width from the bottom to the top shall be left therein, and a free, direct and uninterrupted space of said width shall be effectually secured for the passage of fish of all kinds, both up and down through such cribs, &c.

5 & 6 Vict. c. 106, s. 40. Weekly close season.

27. Penalty for non-observance, or for using any means or device to prevent the free passage, or frightening or scaring, or attempting to frighten or scare any salmon from

13 & 14 Vict. c. 88, s. 40.

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passing, or taking any salmon during the time specified, not less than Ten pounds, and not exceeding Fifty pounds: Provided such person shall not be prevented by floods, storm or stress of weather from removing such leaders, or making such openings.

5 & 6 Vict. c. 106,
s. 63.

28. During the weekly close season the sluices which admit the water to the wheels of all mills or factories, shall at all seasons of the year be kept shut for twenty-four consecutive hours in each week, between six o'clock on Saturday afternoon, and six o'clock on Monday morning, so that the water may be allowed to flow freely through any existing gap in such weir, or any fish passage formed therein, or where no gap or fish pass, through the waste gate on the up-stream side of the wheel sluices of such mill, &c.

See also pages 20 and 21, 13 & 14 Vict. c. 88, s. 39.

8 & 9 Vict. c. 108,
s. 10. Coast guards
empowered to open
passages during
close season.

29. It shall be lawful for constabulary and coast guards, &c., and any person acting under authority of the Commissioners, when and as often as they or any of them shall, in any fishing weir, net or contrivance, during the weekly or other close season, find any passage shut, closed or obstructed, or during such close time, in any place find any net or other contrivance placed or used where the same are now by law, or may be prohibited by the Commissioners, or shall at any time find any obstruction in the Queen's share or free gap, through or over any fishing or other weir, or in the sluice passages appurtenant to any mill or factory at any time when the sluice-gate of same shall be open, then and so often to open such passages, and remove all such obstructions, doing no unnecessary damage; and to seize and remove all nets and parts of nets which may be found so placed or used contrary to provisions of Act. Nothing to exempt any person from the penalties and forfeitures prescribed by Act, in respect to any of the matters aforesaid; not liable for any damage caused by opening such passage, or removal of nets or obstruction.

Note.—No power given to seize fish caught in weekly close season. This power confined to annual close season, sec. 20.

LICENSESES.

11 & 12 Vict. c. 92,
s. 8. Engines for
salmon and trout
fishing, &c. to be
licensed.

30. All engines, nets, instruments or devices whatsoever, used for the taking of salmon, trout, pollen, or fish of the salmon and trout kind, or for the taking of eels, and all fixed salmon, trout or eel fisheries within any district, or on or off the sea coast thereof, shall, before the same be used in any year, be duly licensed and rated, upon payment of the license duty or rate, as the case may be.

31. For amount of license duty, *see* page 434.

11 & 12 Vict. c. 92,
s. 21.

32. Rods used singly for taking trout, perch, pike or other fish, save and except salmon, shall not be subject to any license duty.

White trout.

33. Rods used for taking white trout subject to license duty. *See* definition of "White Trout," section 1 of 13 & 14 Vict. c. 88.

13 & 14 Vict. c. 88,
s. 12.

Forfeitures to be
applied to district.
11 & 12 Vict. c. 92,
s. 22.

34. Penalty for using engines subject to license duty without the same being duly licensed for such year, not less than double, nor more than treble the license duty which the engine would for the time be subject to, and forfeiture of engine; such engine to be sold or otherwise disposed of as the magistrates shall seem fit, and the entire proceeds thereof shall be added to the general funds of the district in which the same shall be used or erected.

License to be pro-
duced. 11 & 12
Vict. c. 92, s. 29.

35. Persons using engines for fishing, or having the same erected or in fishing order, or found with the same in his possession, in or near any fishing place, required to produce license to any Commissioner, conservator, inspector, or officers or men of the navy, coast guard, or constabulary, or water bailiff, when demanded.

MESHES OF NETS.

Size of meshes of
nets. 8 & 9 Vict.
c. 108, s. 11.

36. Nets for the capture of salmon and trout to be of not less size than one and three quarter inches from knot to knot, measured when the net is wet.

Note.—Any alterations made will be notified at each coast guard station.

ILLEGAL NETS.

5 & 6 Vict. c. 106,
s. 103.
Illegal nets shall be
brought before
magistrates at
petty sessions, and
destroyed;

and legal nets.
when used illegally,
shall, upon being
forfeited, be sold.

37. In case any officer or person authorised and empowered to seize illegal nets or engines, or nets or engines of a legal form and size when used contrary to the provisions of Act, or any of the bye-laws to be made in pursuance hereof, shall seize the same, it shall and may be lawful for him to retain the same in his custody until the next sitting of the Petty Sessions Court, or any adjournment thereof, in the district where the same shall be seized, and at such Petty Sessions Court it shall and may be lawful for the justices to order and direct the same to be forfeited, and in case the same shall be such as cannot be legally used under the provisions of Act, to order the same to be destroyed; and in case the same shall be such as may be legally used according to the provisions of Act, that then and in such case it shall be lawful for such justices to order the same to be sold, and the money arising therefrom to be applied in the same manner as the penalties imposed for violation of the provisions of Act are directed to be applied.

38. It

SPEARS, &c.

38. It shall not be lawful in any freshwater river or lake at any season of the year, to use for the purpose of taking fish, any otter, lyster, spear, strokehaul, dree draw, or gaff (except when the latter implement may be used solely as auxiliary to angling with rod and line, or for the purpose of removing fish from any legal weir or box by the owner or occupier thereof), under penalty of not less than Four pounds, nor greater than Ten pounds.

18 & 14 Vict., c. 88, s. 40.
Otters, spears, &c., prohibited.

FRY.

39. If any person shall wilfully take, sell, purchase, or have in his possession the spawn, smolts, or fry of salmon or of trout or of eels, or in any way or by any device wilfully obstruct the passage of the said smolts or fry, or injure or disturb any such spawn or fry, or any spawning bed, bank, or shallow where the same may be, such person shall forfeit and pay a sum not exceeding Ten pounds for each and every such offence, and all nets, engines, and devices used in the taking of the same, or whereby any such injury shall be caused, shall be forfeited.
40. The word "Salmon" shall extend to and include grilse, peal, sea trout, samlets, par, &c., and the spawn and fry thereof.

5 & 6 Vict., c. 106, s. 73.
Penalty for having, taking, or attempting to take fry and spawn of salmon, trout or eels.

18 & 14 Vict., c. 88, s. 1.

UNCLEAN FISH.

41. If any person shall at any time wilfully take, kill, destroy, expose to sale, or have in his possession any red, black, foul, unclean, or unseasonable salmon or trout, such person shall forfeit and pay any sum not exceeding Two pounds for every such fish so taken, killed, destroyed, exposed to sale, or in his possession: provided always, that if any person shall take or catch any such fish accidentally, and return the same immediately to the water without injury, such person shall not be liable to the penalty aforesaid.

5 & 6 Vict., c. 106, s. 74.
Penalty for having, taking, or offering for sale any unclean or spent fish.

WEIRS, QUEEN'S SHARE, &c.

42. No person shall fish with rod and line, or in any other manner, in any part of the free gap or Queen's share, in any weir in any river, or hang, fix, set, or use, within the space of Fifty yards above or below any part of such weir, any net, basket, or other engine for the taking of fish, or in order to deter or prevent fish from going up or down the same, or place any obstruction, or throw any gravel, clay, stones or other matter into the same, nor shall beat the water or place, or set any bridge, board, cloth or any other thing in, over or across the same, nor shall in any manner prevent the free and uninterrupted passage of fish through the same, at all periods of the year: penalty for every offence, a sum not exceeding Thirty pounds; proof that such person is the occupier or owner of such weir shall be taken as *prima facie* that such obstructions were placed by him.
43. No net, instrument, or device for taking fish (save and except rods and lines only) shall be used within Two hundred yards of any weir used for supplying water to mills, &c., or for navigation, either above or below the same: penalty for every such offence, not less than Two pounds, nor more than Ten pounds, and forfeiture of net, &c.
44. Where such right has been exercised in any such place by any person lawfully possessed of a several fishery therein, for Twenty years next before passing of Act, he shall not be subject to the penalty provided.

5 & 6 Vict., c. 106, s. 57.
No obstructions to be placed near Queen's share, nor shall any person fish in or near same.
Penalty.
Owner of weir liable.

18 & 14 Vict., c. 88, s. 37.
Taking fish near weirs.

Proviso.
18 & 14 Vict., c. 88, s. 37.

FISH PASSAGES.

45. In all dams or weirs which shall be constructed after the passing of Act, means shall be provided for the free migration of salmon and other fish, at the expense of the person forming such weir.
46. In all dams and weirs means for migration of fish may be provided, no injury being done to navigation or power of mills: and where such means for migration of fish or fish passes have been built in weirs, the owners or occupiers of all such mills or factories are required at any time during which such mill or factory shall not be at work or where the water wheel or watercourses thereof shall not be undergoing such repairs as shall require the water above such mill to be run off, to stop and close up in dry seasons all other waste gates or overfalls, so as to direct and force the surplus water of such river or stream through the fish passage: penalty for non-observance, any sum not exceeding Five pounds.
47. During the weekly close seasons the sluices, &c. shall at all seasons of the year be kept shut up for 24 consecutive hours in each week, so that the water may be allowed to go freely through any existing gap or passage in such weir, &c.

5 & 6 Vict., c. 106, s. 63.
Fish passes.

Penalty.

During weekly close season.

Appendix E.

5 & 6 Vict., c. 106,
s. 64.
Fishing at or near
fish passages.

Penalty.

48. It shall not be lawful for any person to take, kill, or destroy any salmon or other fish, or hang, fix, use, or set in such fish passages made through natural obstructions, mill dams, weirs, or other similar works, any net, basket or other engine or contrivance whatsoever for the taking of fish, or to place any obstacle or contrivance of any kind soever in or near thereto, in order to deter fish from freely entering or passing up or down through the same, at all periods of the year, but the fish pass shall be kept and preserved free from every obstruction: penalty, any sum not exceeding Twenty pounds.—*See* section 64.

MILLS AND SLUICES.

18 & 14 Vict. c. 81,
s. 39.
Mill sluices to be
opened or shut as
by law required at
all times when mills
are out of use.
Fish passes.

49. The waste sluices, waste gates, or overfalls of the weirs of any mill or factory deriving their supply from rivers frequented by salmon, shall, at all seasons of the year when and during the time such mills or factories shall not be used for milling purposes, be kept open, if no passage for fish be provided; and when such passage for fish shall be provided, then the sluices which admit the water to such mills or factories, and the waste sluices, waste gates, or overfalls shall be kept down or shut to force the water through such passage for fish as provided by 5 & 6 Vict. c. 106; and if the owners of any such mill or factory not used for milling purposes as aforesaid, shall omit to keep any such sluice or sluices, waste gates, or overfalls shut as aforesaid, or open as aforesaid, he shall forfeit and pay a sum not less than Two pounds, nor more than Ten pounds, for every such offence: Provided always, that the opening or shutting of such sluices, waste gates, or overfalls shall not in any way injuriously interfere with the machinery or water power of any mill or factory.

MILLS, DAMS, AND WATERCOURSES.

5 & 6 Vict. c. 106,
s. 76.
Penalty for any
person taking or
attempting to take
fish, or the fry of
fish, in works ap-
purtenant to mills
or factories, or in
watercourses
diverted from rivers
for such purposes.

50. If any person shall, at any season of the year, in any mill pool or mill dam, or in any works appurtenant to any mill or factory, or in any of the watercourses leading the water to or from such mill or factory, place, lay, set, or draw any net, grate, creel, or other engine, or use any means or device whatsoever (save and except rod and line used subject to the provisions of Act), for the purpose of taking, destroying, or obstructing any salmon or other fish, or the fry thereof, every such person so offending shall for every such offence forfeit and pay a sum not exceeding Ten pounds, and shall also forfeit such nets or other engines; and in case the person who shall have actually committed any such offence shall not be known or found, and if such offence shall have been committed by means of shutting down or closing any gate or sluice which is under the exclusive power of the occupier of any mill or factory, or if such offence shall have been committed under such circumstances as shall appear to the justice or justices before whom any complaint thereupon shall be made to afford reasonable grounds for believing that such offence was committed by some person in the employment or under the control of the owner or occupier of such mill or factory, or that it was committed with the knowledge or connivance of such owner or occupier, or the person in charge of such mill or factory, or through the default of reasonable precaution on the part of such owner or occupier, to prevent such offence, then and in every such case such owner or occupier of such mill or factory shall be deemed and taken to be liable to and shall incur the penalty and forfeiture aforesaid, as if such offence had been actually committed by him.

NIGHT.

5 & 6 Vict. c. 106,
s. 78.
Penalty for
attempting to take
salmon, trout, &c.
at night in inland
rivers, &c., or using
lights, &c. for such
purposes.

51. If any person shall, between sunset and sunrise, have, or use any light or fire of any kind, or any spear, gaff, strokeall, or other such instrument, with intent to take salmon or other fish in or on the banks of any lake or river, or if any person shall be found at any time chasing, injuring, or disturbing spawning fish, or fish on the spawning beds, or attempting to catch fish in such places (except with rod and flies only, within the lawful period), or damming, or teeming, or emptying any river or mill race for the purpose of taking or destroying any salmon or trout, or the fry thereof, every person so offending in any of the cases aforesaid, shall forfeit all such instruments, and shall also forfeit and pay any sum not exceeding Ten pounds.

POISONOUS MATTER.

5 & 6 Vict. c. 106,
s. 80.
Allowing poisonous
matter to flow into
inland rivers.

52. No person shall throw, empty, or cause to run or flow into any river or lake any dye stuff or other deleterious or poisonous liquid, or shall throw into such river or lake any lime, spurge, or other deleterious or poisonous matter, or shall steep in such river or lake any flax or hemp, and if any person shall so offend he shall forfeit and pay for every such offence any sum not exceeding Ten pounds: Provided always, that nothing in Act contained shall extend or be construed to render any person liable to the penalties imposed for casting into any river or stream any dye stuffs or other materials which are not of a deleterious nature, or which are not in a state poisonous to fish or other animals using the waters thereof.

POISONING RIVERS.

53. Any person found on the bank of or near any river with any deleterious matter in his possession, under such circumstances as shall satisfy the court before whom he may be tried, that such person had employed or was about to employ such deleterious matter for the capture or destruction of fish, the said court is empowered to inflict on such person a penalty not less than Five pounds, nor more than Ten pounds; and any person found taking fish from any river or lake where it shall be proved to the satisfaction of any justice that such fish has been wilfully poisoned, shall be subject to a penalty of not less than Ten shillings, nor more than Five pounds.

13 & 14 Vict. c. 38, s. 36.
Poisoning rivers for purpose of taking fish.

APPLICATION OF PENALTIES.

54. One-third of every sum of money levied as a fine or penalty for any offence, under the provisions of the Acts (save and except penalties for non-payment of any such license duty as aforesaid), shall be paid to the informer or person who shall be the means of bringing to justice any person offending against any of such provisions; and the other two-thirds shall, anything in the Acts to the contrary notwithstanding, be awarded to the Crown; except as regards all penalties under the 11 & 12 Vict. c. 92, which shall be applied as directed by that Act; provided that only one-third of the penalty be paid to the prosecutor, and the other two-thirds shall be applied to the purposes of Act, for the district formed under Act in which such offence shall have been committed. One-third of penalties to go to informer or prosecutor, and two-thirds to conservators of district.

21 & 22 Vict. c. 100, s. 28.
11 & 12 Vict. c. 92, s. 35.
14 & 15 Vict. c. 90, s. 13.

21 & 22 Vict. c. 100, s. 28.

55. Minimum of penalties in certain cases mentioned in 36th section, 5 & 6 Vict. c. 106.— See pages 428, 429.

11 & 12 Vict. c. 92, s. 42.

WHITE TROUT.

56. The word "salmon" shall extend to and include grilse, peal, sea trout, samleta, par, and all other fish of the salmon kind, and the spawn and fry thereof.

13 & 14 Vict. c. 38, s. 1.

LIMITATION OF ACTIONS.

57. No person shall be convicted of any offence committed against the provisions of Act, unless the prosecution shall be commenced within six calendar months from the time of the commission of such offence.

5 & 6 Vict. c. 106, s. 98.

SUMMONS.

58. To be served personally, or left at or on board the vessel, or posted on the known residence of the person for whom intended.

5 & 6 Vict. c. 106, s. 94.

COMPLAINTS.

59. All offences against Act, or any bye-law, &c., may be determined in a summary way by one or more justice on the complaint, verbal or otherwise, of any person.

5 & 6 Vict. c. 106, s. 94.

BYE-LAWS.

60. Copies of bye-laws obtained from the office of clerk of peace, or clerk of petty sessions, are legal evidence of the existence of such bye-law.

5 & 6 Vict. c. 106, s. 93.

Appendix (E.)

ABSTRACT of BYE-LAWS, ORDERS, &c., made by the COMMISSIONERS of FISHERIES
in IRELAND, to 1st January 1859.

Place affected by Bye Law.	NATURE of BYE LAW.
AGAINST TRAWLING.	
Dublin Bay - -	Prohibiting trawling inside lines drawn from the Bailey Lighthouse at Howth, to the easternmost point of the rocks called the "Mugglins;" thence by a straight line to the southern point of Dalkey Island; thence by a straight line across Dalkey Sound, in the direction of the signal station on Killiney Hill.
East Coast - -	Prohibiting trawling within a line drawn from the Nose of Howth, to the eastern point of St. Patrick's Island (Skerries); thence to Clogher Head; thence to Dunany Point; thence to Cranfield Point, in the county Down.
Dundrum Bay, &c. -	Prohibiting trawling from Hellyhunter Rock, off Cranfield Point, to St. John's Point, both in the county Down.
Belfast Lough - -	Prohibiting trawling within a straight line drawn from the Castle of Carrickfergus, to Rockport, in the county Antrim, and from 1st December to 1st April, and the use of nets of less mesh than one and three quarter inches from knot to knot (except draft nets for herrings).
Lough Swilly - -	Prohibiting trawling within a line from Knockalla Battery, on the west side, to Linsfort Church on the east side of the Lough.
Donegal Bay - -	Prohibiting trawling within a straight line from the Bian Rock, to a place called "Doorin Point;" and from a place called the "Blind Rock," to the northern point of the townland of Rossnowlagh, Lower; and from thence to Kildoney Point; and from thence to a place called "Pointinchose."
Galway Bay - -	Prohibiting trawling within a line from Barna Pier to Gleninagh Castle. Also when large shoals of herrings shall have set in in the Bay, and while boats are engaged in drifting for herrings or mackerel, and when boats shall commence fishing for herrings or mackerel, that trawl boats shall keep at a distance of three miles from them.
Dingle Bay - -	Prohibiting trawling within a straight line from Bull's Head, near Dingle, to Cununna, near Valentia.
Bantry Bay - -	Prohibiting trawling within a straight line from Crowdy Point to Carrigskye Rock; and from thence to Reenavanny Point, on the north shore of Whiddy Island.
Waterford Harbour -	Prohibiting trawling within a line drawn from Creden Head to Temple Church.
Wexford Coast - -	Prohibiting trawling in all places where there are boats engaged in herring or mackerel drift net fishing; and that trawl boats shall keep at a distance of at least three miles from all boats fishing for herrings or mackerel, with drift nets. And whenever herring or mackerel boats shall commence drift net fishing in any place, on or off the coast of Wexford, the trawl boats shall depart therefrom, and keep at least three miles distant from the drift net herring or mackerel boats.
TRAMMEL NETS.	
Dungarvan Bay -	Prohibiting the use of trammel and every other fixed or moored net (except bag or other nets for the taking of salmon) in Dungarvan Bay, within the limit formed as follows; namely, the space lying between a line passing due east and west, through the northernmost point of Helvick Head, and a line passing due east and west through the southernmost point of Ballinacourty Head, in the county Waterford; but to the north and east of the line through Ballinacourty Head, and to the south and west of the line through Helvick Head, such trammel or moored nets may be set, and remain set in the water, from three o'clock, p.m., of one day, until nine o'clock, a.m., in the following day,

ABSTRACT of Bye Laws, Orders, &c., made by the Commissioners of Fisheries in Ireland—*contd.*

Place affected by Bye Law.	NATURE of BYE LAW.
	<i>Trammel Nets—continued.</i>
Dungarvon Bay— <i>continued.</i>	day, during January, March, October, November, and December, in each year; and from five o'clock, p.m., of one day, to seven o'clock, a.m., in the following day, during May, June, July, August, and September. Also prohibiting such nets athwart or within 200 yards of any boat, which, at the time of setting such net, shall be moored, and the crew thereof engaged in line fishing; and to every train of such trammel or moored nets shall be attached at least one floating buoy or board, upon which shall be painted, in legible characters not less than one inch in length, in white upon a black ground, the letter of the district, and the name of the owner to which such net belongs.
River Slaney, county Wexford.	Prohibiting, during the close season for salmon, the use of nets of any kind whatsoever, between Ferry Carrig Bridge and the town of Enniscorthy.
River Shannon - -	Prohibiting net fishing in that part of the River Shannon between Wellesley Bridge and the railway bridge, between 1st June and 12th February.
Lough Ree, River Shannon.	Permitting the use of nets in Lough Ree, having a mesh of five inches in the round, measured when the net is wet.
Castlemaine Estuary -	Prohibiting, during the salmon close season, the use of draft nets having a foot rope and leads or weights affixed thereto, in the estuary of Castlemaine, inside the bar of Inch.
Lough Neagh - -	Permitting pollen to be taken by trammel or set nets composed of thread or yarn of a fine texture, not less than 10 hanks to the pound weight, doubled and twisted with a mesh of not less than one inch from knot to knot; or from 15th May to 31st August, by draft nets, having a mesh not less than one inch from knot to knot.
Galway River, Lough Corrib, &c.	Prohibiting the use of the instrument, commonly called strokehaul or snatch, or any other such instrument in River Galway, Loughs Corrib or Mask, or their tributaries.
	<i>OYSTERS.</i>
Coasts of Wicklow and Wexford.	Permitting, during the month of May, the dredging for oysters from any of the public beds below level of lowest water of spring tides, on that part of the coast between Wicklow Head and Raven Point, north of Wexford Harbour, for purpose of replenishing and supplying artificial oyster beds or layings, or other beds or layings, the exclusive property of any person, <i>but for no other purpose whatever.</i>
Cork Harbour - -	First.—That between the 1st May and 1st September, no boat shall have on board any dredge or other implement for taking oysters. Second.—Every fisherman shall, on the fishing ground, cull all oysters, and shall not remove any oysters of less dimensions than two and a half inches at the greatest diameter thereof; and shall throw back into the sea all gravel and fragments of shells as he shall raise while engaged in such fishing. Third.—All persons are prohibited from throwing into the sea, or any oyster bed or oyster fishing ground, the ballast of any boat, or any other matter or thing injurious to the oyster fishery. Fourth.—No person shall, between sunset and sunrise, dredge for, take, or catch any oysters within the harbour of Cork.

Appendix (E.)

SCHEDULE OF LICENSE DUTIES payable in each District in Ireland on Engines used for Fishing, on 1st January 1859.

DISTRICT.	1. Salmon Rods.	2. Cross Lines.	3. Snap Nets.	4. Draft Nets.	5. Drift Nets.	6. Trammel Nets or Draft Nets for Pollen.	7. Pole Nets.	8. Bag Nets.	9. Fly Nets.	10. Stake Nets.	11. Head Weirs.	12. Box, Crib, &c.	13. Gap, Eye, &c.	14. Sweepers.	15. Coghills.	16. Loop Nets.
1. Dublin -	£. s. d. - 10 -	£. s. d. 2 - -	£. s. d. 1 10 -	£. s. d. 3 - -	£. s. d. 3 - -	£. s. d. 1 10 -	£. s. d. 2 - -	£. s. d. 5 - -	£. s. d. 5 - -	£. s. d. 15 - -	£. s. d. 3 - -	£. s. d. 5 - -	£. s. d. 1 - -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
2. Wexford -	£. s. d. - 10 -	£. s. d. 1 - -	£. s. d. 15 - -	£. s. d. 1 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 2 10 -	£. s. d. 2 10 -	£. s. d. 7 10 -	£. s. d. 1 10 -	£. s. d. 2 10 -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
3. Waterford -	£. s. d. - 10 -	£. s. d. 1 6 8	£. s. d. 1 - -	£. s. d. 2 - -	£. s. d. 2 - -	£. s. d. 1 - -	£. s. d. 1 6 8	£. s. d. 3 6 8	£. s. d. 3 6 8	£. s. d. 10 - -	£. s. d. 2 - -	£. s. d. 3 6 8	£. s. d. - 13 4	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
4. Lismore -	£. s. d. - 10 -	£. s. d. 1 - -	£. s. d. 15 - -	£. s. d. 1 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 5 - -	£. s. d. 2 10 -	£. s. d. 7 10 -	£. s. d. 1 10 -	£. s. d. 2 10 -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
5. Cork -	£. s. d. - 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 5 - -	£. s. d. 2 10 -	£. s. d. 7 10 -	£. s. d. 1 10 -	£. s. d. 5 - -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
6 ¹ . Skibbereen -	£. s. d. - 10 -	£. s. d. 1 - -	£. s. d. 15 - -	£. s. d. 1 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 2 10 -	£. s. d. 2 10 -	£. s. d. 7 10 -	£. s. d. 1 10 -	£. s. d. 2 10 -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
6 ² . Bantry -	£. s. d. - 10 -	£. s. d. 1 - -	£. s. d. 15 - -	£. s. d. 1 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 2 10 -	£. s. d. 2 10 -	£. s. d. 7 10 -	£. s. d. 1 10 -	£. s. d. 2 10 -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
6 ³ . Kenmare -	£. s. d. - 10 -	£. s. d. 1 - -	£. s. d. 15 - -	£. s. d. 1 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 2 10 -	£. s. d. 2 10 -	£. s. d. 7 10 -	£. s. d. 1 10 -	£. s. d. 2 10 -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
7. Killarney -	£. s. d. - 10 -	£. s. d. 1 10 -	£. s. d. 1 - -	£. s. d. 2 - -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 3 10 -	£. s. d. 2 10 -	£. s. d. 7 10 -	£. s. d. 2 - -	£. s. d. 2 10 -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
8. Limerick -	£. s. d. - 10 -	£. s. d. 1 6 8	£. s. d. 1 - -	£. s. d. 2 - -	£. s. d. 2 - -	£. s. d. 1 - -	£. s. d. 1 6 8	£. s. d. 3 6 8	£. s. d. 3 6 8	£. s. d. 10 - -	£. s. d. 2 - -	£. s. d. 3 6 8	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
9. Galway -	£. s. d. - 10 -	£. s. d. 1 10 -	£. s. d. 1 2 6	£. s. d. 2 5 -	£. s. d. 2 5 -	£. s. d. 1 2 6	£. s. d. 1 10 -	£. s. d. 3 15 -	£. s. d. 3 15 -	£. s. d. 11 5 -	£. s. d. 2 5 -	£. s. d. 3 15 -	£. s. d. - 15 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
10 ¹ . Ballynakill -	£. s. d. - 10 -	£. s. d. 2 - -	£. s. d. 1 10 -	£. s. d. 3 - -	£. s. d. 3 - -	£. s. d. 1 10 -	£. s. d. 2 - -	£. s. d. 5 - -	£. s. d. 5 - -	£. s. d. 15 - -	£. s. d. 3 - -	£. s. d. 5 - -	£. s. d. 1 - -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
10 ² . Bangor -	£. s. d. - 10 -	£. s. d. 2 - -	£. s. d. 1 10 -	£. s. d. 3 - -	£. s. d. 3 - -	£. s. d. 1 10 -	£. s. d. 2 - -	£. s. d. 5 - -	£. s. d. 5 - -	£. s. d. 15 - -	£. s. d. 3 - -	£. s. d. 5 - -	£. s. d. 1 - -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
11. Ballina -	£. s. d. 1 - -	£. s. d. 2 - -	£. s. d. 1 10 -	£. s. d. 3 - -	£. s. d. 3 - -	£. s. d. 1 10 -	£. s. d. 2 - -	£. s. d. 5 - -	£. s. d. 5 - -	£. s. d. 15 - -	£. s. d. 3 - -	£. s. d. 5 - -	£. s. d. 1 - -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
12. Sligo -	£. s. d. - 10 -	£. s. d. 2 - -	£. s. d. 1 10 -	£. s. d. 3 - -	£. s. d. 3 - -	£. s. d. 1 10 -	£. s. d. 2 - -	£. s. d. 5 - -	£. s. d. 5 - -	£. s. d. 15 - -	£. s. d. 3 - -	£. s. d. 5 - -	£. s. d. 1 - -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
13. Ballyhannon -	£. s. d. 1 - -	£. s. d. 2 - -	£. s. d. 1 10 -	£. s. d. 3 - -	£. s. d. 3 - -	£. s. d. 1 10 -	£. s. d. 2 - -	£. s. d. 5 - -	£. s. d. 5 - -	£. s. d. 15 - -	£. s. d. 3 - -	£. s. d. 5 - -	£. s. d. 1 - -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
14. Letterkenny -	£. s. d. - 10 -	£. s. d. 1 - -	£. s. d. 15 - -	£. s. d. 1 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 2 10 -	£. s. d. 2 10 -	£. s. d. 7 10 -	£. s. d. 1 10 -	£. s. d. 2 10 -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - 10 -
15 ¹ . Londonderry -	£. s. d. - 10 -	£. s. d. 2 - -	£. s. d. 1 10 -	£. s. d. 3 - -	£. s. d. 3 - -	£. s. d. 1 10 -	£. s. d. 2 - -	£. s. d. 5 - -	£. s. d. 5 - -	£. s. d. 15 - -	£. s. d. 3 - -	£. s. d. 5 - -	£. s. d. 1 - -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
15 ² . Coleraine -	£. s. d. - 10 -	£. s. d. 1 - -	£. s. d. 15 - -	£. s. d. 1 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 5 - -	£. s. d. 5 - -	£. s. d. 7 10 -	£. s. d. 1 10 -	£. s. d. 2 10 -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
16. Ballycastle -	£. s. d. - 10 -	£. s. d. 2 - -	£. s. d. 1 10 -	£. s. d. 3 - -	£. s. d. 3 - -	£. s. d. 1 10 -	£. s. d. 2 - -	£. s. d. 5 - -	£. s. d. 5 - -	£. s. d. 15 - -	£. s. d. 3 - -	£. s. d. 5 - -	£. s. d. 1 - -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -
17. Drogheda -	£. s. d. - 10 -	£. s. d. 1 - -	£. s. d. 15 - -	£. s. d. 1 10 -	£. s. d. 1 10 -	£. s. d. 15 - -	£. s. d. 1 - -	£. s. d. 2 10 -	£. s. d. 2 10 -	£. s. d. 7 10 -	£. s. d. 1 10 -	£. s. d. 2 10 -	£. s. d. - 10 -	£. s. d. - - -	£. s. d. - - -	£. s. d. - - -

NOTE.—For Boundaries of Districts, see p. 435.

TABLE showing the CLOSE SEASON for SALMON and TROUT in the different Districts in Ireland, as fixed by Statute Law, or the Order of the Commissioners.

No. and Name of District.	Boundary of District.	Tidal.	Fresh Water.	Rod Fishing, Up-waters.
1. Dublin	Skerries to Wicklow	From Howth to Dalkey Island, between 31 July and 1 Feb. For remainder of district, between 31 August and 1 Feb.	In all rivers flowing into the sea between Howth and Dalkey Island, between 31 July and 1 February. For remainder of district, between 31 August and 1 March.	In all rivers flowing into the sea between Howth and Dalkey, between 15 October and 1 March. For remainder of District, between 28 Sept. and 1 March.
2. Wexford	Wicklow to Bagenbon Head	Between 28 Sept. and 1 Mar. (but fixed nets between 15 Sept. and 1 Mar.)	Between 28 September and 1 March.	Between 28 September and 1 March.
3. Waterford	Bagenbon to Helvick Head	Between 15 Sept. and 12 Feb.	Between 15 Sept. and 12 Feb.	Between 28 Sept. and 12 Feb.
4. Lismore	Helvick Head to Ballycotton	Between 15 Sept. and 13 Feb.	Between 15 Sept. and 13 Feb.	Between 9 Oct. and 14 Feb.
5. Cork	Ballycotton to Galley Head	Between 31 August and 12 February for Electoral Division A. (between Ballycotton and Barry's Head, east of Oyster Haven). Between 31 August and 1 March for Electoral Division B. (between Barry's Head, east of Oyster Haven, and Galley Head).	Between 31 August and 1 April for Electoral Division C. Between 31 August and 1 April for Electoral Division D.	Between 28 Sept. and 1 March, for Electoral Division C. Between 28 Sept. and 1 April, for Electoral Division D.
6 ¹ . Skibbereen	Galley Head to Mizen Head	Between 15 Sept. and 1 April	Between 15 Sept. and 1 April	Between 15 October and 1 April.
6 ² . Bantry	Mizen Head to Crow Head	- - ditto - - -	- - ditto - - -	- - ditto.
6 ³ . Kenmare	Crow Head to Lamb Head	- - ditto - - -	- - ditto - - -	- - ditto.
7. Killarney	Lamb Head to Dunmore Head, including the Blaakets.	Between 31 July and 1 January, save River Maine and tributaries. For River Maine and tributaries, between 15 September and 1 April.	Between 31 July and 18 January, save River Maine and tributaries. For River Maine and its tributaries, between 15 September and 1 April.	Between 15 September and 18 January, except for River Maine and its tributaries. For River Maine and its tributaries, 28 September and 1 March (but for cross lines same as netting).
8. Limerick	Dunmore to Hags Head	Between 12 August and 12 February, but between Kerry Head and Dunmore Head, 15 September and 1 April.	Between 12 August and 12 February, but for Electoral Divisions C. and D. 12 August and 1 May, and rivers between Kerry Head and Dunmore Head, 15 September and 1 April.	Between 15 September and 12 February, but between Kerry Head and Dunmore Head, 15 October and 1 April.
9. Galway	Hags Head to Slyne Head	Between 31 August and 1 Feb.	Between 31 August and 1 March	Between 28 Sept. and 1 March.
10 ¹ . Ballinakill	Slyne Head to Emlagh Point	- - ditto - - -	- - ditto - - -	- - ditto.
10 ² . Bangor	Emlagh Point to Benwee Head	- - ditto - - -	- - ditto - - -	- - ditto.
11. Ballina	Benwee to Coonamore	Between 19 August and 1 Feb.	Between 19 August and 1 Feb.	Between 19 August and 1 February for Salmon, but between 28 September and 1 March for Trout.
12. Sligo	Coonamore to Mullaghmore	- - ditto - - -	- - ditto - - -	Between 28 Sept. and 1 Feb.
13. Ballyshannon	Mullaghmore to Rossan	- - ditto - - -	- - ditto - - -	Between 19 August and 1 February for Salmon; but between 28 September and 1 March for Trout; and for River Inver, between 28 September and 1 March.
14. Letterkenny	Rossan to Malin Head	Between 19 August and 1 January, and one mile above tide-way.	Between 19 August and 1 March	Between 28 Sept. and 1 March.
15 ¹ . Londonderry	Malin to Downhill Boundary	Between 31 August and 1 Feb.	Between 31 August and 1 March	- - ditto.
15 ² . Coleraine	Downhill Boundary to Portrush	Between 19 August and 1 Feb.	Between 19 August and 1 March	- - ditto.
16. Ballycastle	Portrush to Donaghadee	- - ditto - - -	- - ditto - - -	- - ditto.
17. Drogheda	Donaghadee to Skerries	Between 19 August and 12 February, from Skerries to Cranfield Point; but between 28 September and 1 March, from Cranfield Point to Donaghadee.	Between 19 August and 12 February, from Skerries to Cranfield Point; between 28 September and 1 March, from Cranfield Point to Donaghadee.	Between 28 September and 12 February.

Close Season for fixed engines for the capture of eels, between the 10th January and 1st July, save in the River Shannon, which is between the 21st January and 1st July.

Future changes will be notified at each Coast Guard Station.

Office of Public Works, Department of Fisheries,
Dublin, 1 January 1859.

MOUTHS OF RIVERS defined by the COMMISSIONERS.

By the 22d section of the 5th & 6th Vict. c. 106, it is prohibited for any person (save and except the proprietor of a several Fishery) to erect any fixed engine or contrivance for placing a net within one mile. of the mouth of a river; and by the 27th section of same Act it is prohibited for any person (save such proprietor of a several Fishery) to shoot, draw, or use any net for taking Salmon within half a mile of such mouth.

NAME of RIVER.	WHERE MOUTH DEFINED.
Liffey - - -	By a straight line drawn from the eastern extremity of the North-wall to the Long-wall at Ringsend.
Bray - - -	By a straight line drawn from the Martello Tower on the north, to Martello Tower on south side of river.
Owenavarragh, or Courtown.	By a straight line drawn between the eastern extremities of the two piers forming Courtown Harbour.
Slaney - - -	By a straight line drawn northerly from Rosslare Point to the opposite shore.
Suir, Nore, and Barrow	By a straight line drawn from the Magazine Tower, near the N.E. point of Passage East, to the point due south of Ballyhack Church, commonly called the Church Point.
Ouvane, or Ballylickey	By a straight line drawn from the southern point of the townland of Barnagearagh, due east, to the opposite shore or bank.
Snave, or Coomhola -	By a straight line drawn from the western to the eastern side of the new Snave Bridge.
Glengariffe - - -	By a straight line drawn at the fall below Cromwell's Bridge.
Adrigole - - -	By a straight line drawn from the southern side of the church in townland of Adrigole, to southern side of chapel in townland of Drumgarvan.
Owenshagh - - -	By a straight line drawn from the N.W. corner of the Quay Buildings, to eastern point of Carrignafarnogue Rock.
Croanshagh - - -	By a straight line drawn from the north part of Carrigacappul, otherwise Horse Rock, to Reenkillia Point.
Clonee - - -	By a straight line drawn from the north point of the beach of Arday Strand, due north, to Leillaun Peninsula.
Sheen - - -	By a straight line drawn from the eastern point of Old Kenmare Church to the west gable of John Lane's house.
Roughly - - -	By a straight line drawn from the boundary between the townlands of Gurtagass and Killowen to nearest point of marsh on south side of river.
Blackwater - - -	By a straight line drawn from the Outer Fishing Rock on west side of river, to nearest point on opposite shore, in townland of Dromore Demesne.
Sneem - - -	By a straight line drawn from the Oyster House to the north point of Einaun Island.
Finnehy - - -	By a straight line drawn in direction, from Reenagappul Point to Tubbrid Point.
Curraan - - -	By a straight line drawn from the south point of townland of Waterville to north east point of townland of Basslycaun.
Inny - - -	By a straight line drawn from the Ferry House, on north side, to nearest point of Murreagh Sand Bank.
Carra - - -	By a straight line drawn from Reennanalagne Point, due north, to Black Point on opposite shore.
Laune - - -	By a straight line drawn from Lansharragh Point to mouth of small creek leading to Reen Quay.
Maine - - -	By a straight line drawn from the S.W. point of pier under Stone House at Callinafercy, to the opposite point called Keel Point.
Cashen - - -	By a straight line drawn from the point of the baronial boundary, in the townland of Ballyeagh, in a direction south west, to opposite shore.
Corrib - - -	By a straight line drawn from the east point of Nimmo's Pier to the south-west of Rinmore, called Rinmore Point.
Spiddle - - -	By a straight line drawn from Corrahowna Point to the opposite shore, meeting the townland boundary.
Ass, or Errive - -	By a straight line drawn from the W. point of the Great Rock, due west, to the opposite shore.
Delphi, or Bundorragha	By a straight line drawn from the pier of Bundorragha to Pullavale Rock, on east side.
Ballycroy - - -	By a straight line drawn from Gubbaunduff, or Black Point, to Blaina-keeragh Point, on opposite shore.

MOUTHS of Rivers defined by the Commissioners—*continued*.

NAME of RIVER.	WHERE MOUTH DEFINED.
Dunmoran - -	By a straight line drawn across the northern extremities of the piers and jetties built by Board of Works.
Erne - - -	By a straight line drawn in a direction from point of headland, called South Rock, on the south, to the road leading to Fern's Hill, on the north.
Foyle - - -	By a straight line drawn from Culmore Fort to north-west angle of Culkeeragh House.
Roe - - -	By a straight line drawn from Ball's Point to the point of Dargan's Embankment.
Bann - - -	By a straight line drawn from west extremity of Rabbit Warren, in direction of the dome of Downhill House, to opposite shore.
Glenariffe - -	By a straight line drawn from Waterfoot Point, due south, to opposite shore.
Annagassen, or Glyde and Dec.	By a straight line drawn in a direction from Annagassen Mills, on the south, to the coal store on right side of road from Annagassen to Castlebellingham.

LIST of LICENSES granted by the COMMISSIONERS to plant ARTIFICIAL OYSTER BEDS.

LICENSE GRANTED TO.	FOR WHAT PLACE.
Lord Charles P. Clinton - -	Berehaven, county Cork.
Thomas Eccles, Esq. - - -	Harbour of Glengariffe, county Cork.
Rev. Denis and John Mahoney -	Estuary of River Kenmare.
Hon. David Plunket - - -	Killary Harbour, county Galway.
J. K. Boswell, Esq. - - -	Bay of Ballyconnelly, county Galway.
William Foreman, Esq. - - -	Bay of Ardbear, county Galway.
A. C. Lambert, Esq. - - -	Killary Harbour, county Galway.
Archdeacon Magee - - -	Bays of Streamstown and Cleggan, county Galway.
John Richards, Esq. - - -	Bay of Blacksod, county Mayo.
J. C. Garvey, Esq. - - -	Bay of Westport, county Mayo.
Thomas Whyte, Esq. - - -	Bay of Ballisodare, county Sligo.
J. O. Woodhouse, Esq. - - -	Bay of Mulroy, county Donegal.
Burton Bindon, Esq. - - -	Lough of Carlingford, county Louth.

R I V E R.	Fishery District in which situate, according to the division of the Coast made in 1843.	Catchment Basin of River. Square Miles.	S P A W N I N G.			Spawning Fish going up.	
			Begins.	Great bulk of.	Ceases.	Greatest Number of.	Ceases.
1. Liffey - -	Dublin - -	568.3	end October	November, December.	January	September	November
2. Owenavarra - -	Gorey - -	76.	1 November	beginning Dec.	end Jan.	Oct. Nov.	- - -
3. Slaney - -	Wexford - -	815.4	November -	Dec. Jan.	March	Oct. Nov.	- - -
4. Barrow - -	Waterford - -	3,400.2	October -	Nov. Dec. Jan.	March	Oct. Nov.	- - -
5. Nore - -	Ditto - -		October -	Dec. Jan.	March	October	- - -
6. Suir - -	Ditto - -		November -	Dec. Jan.	March	November	- - -
7. Blackwater - -	Youghal - -	1,318.2	1 November	Dec. Jan.	March	Oct. Nov.	- - -
8. Lee - { Upper - -	Cove - -	735.4	end October	December	end Jan.	Oct. Nov.	- - -
- { Lower - -			{ 10 Nov. -	15 December	end Jan.	Oct. Nov.	January -
9. Bandon - -	Kinsale - -	228.	1 November	Jan. Feb.	12 March	Oct. Nov.	- - -
10. Ilan - -	Skibbereen - -	112.	end Nov. -	Dec. Jan.	February	Oct. Nov.	- - -
11. Snaive and Ballylicky.	Castletown - -	50.	10 Nov. -	Nov. Dec.	end Dec.	Oct. Nov.	December
12. Blackwater - -	Kerry - -	40.	November -	- - -	- - -	Oct. Nov.	- - -
13. Roughty - -	Ditto - -	475.	15 Nov. -	Nov. Dec.	1 January	Oct. Nov.	November
14. Curraan - -	Valentia - -	53.	November -	Nov. Dec.	January	Oct. Nov.	- - -
15. Eenagh - -	Ditto - -	98.5	November -	Nov. Dec.	end Dec.	Oct. Nov.	- - -
16. Carra - -	Ditto - -	70.	1 November	Nov. Dec.	begin. Jan.	Oct. Nov.	begin. Nov.
17. Laune - -	Ditto - -	510.6	1 Nov. -	Nov. Dec. Jan.	February	Oct. Nov.	January -
18. Maine - -	Ditto - -		- - -	- - -	- - -	Oct. Nov.	- - -
19. Cashen - -	Listowel - -		- - -	- - -	- - -	- - -	- - -
20. Feal - -	Ditto - -	446.	1 Nov. -	Nov. Dec. Jan.	1 February	- - -	- - -
21. Shannon - { Upper	Ditto - -	4,544.1	November -	Dec. Jan.	end Jan.	- - -	- - -
- { Lower	{ Ditto, and Mil. townmalbay - -		- - -	- - -	- - -	- - -	- - -
22. Corrib, or Galway	Galway - -	1,218.7	- - -	- - -	- - -	- - -	- - -
23. Spiddal - -	Ditto - -	42.	- - -	- - -	- - -	- - -	- - -
24. Costello - -	Ditto - -	30.	November -	December	- - -	Oct. Nov.	January -
25. Ballinahinch - -	Clifden - -	85.	October -	Nov. Dec. Jan.	March	- - -	- - -
26. Reavyle Fishery -	Ditto - -	27.	- - -	- - -	- - -	- - -	- - -
27. Delphi - -	Ditto - -	26.	20 Nov. -	December	11 Jan.	- - -	- - -
28. Errive, or Ass - -	Ditto - -	75.5	20 Nov. -	1 Dec. to 1 Jan.	12 Feb.	- - -	- - -
29. Killieries - -	Ditto - -	- - -	- - -	- - -	- - -	- - -	- - -
30. Belclare - -	Ditto - -	- - -	20 Nov. -	1 Dec. to 1 Jan.	12 Feb.	- - -	- - -
31. Newport - -	Westport - -	60.	end October	15 Nov. to 25 Dec.	- - -	- - -	- - -
32. Burrischoole - -	Ditto - -	53.	1 November	18 November	middle Dec.	- - -	- - -
33. Ballycroy - -	Belmullet - -	54.	- - -	- - -	- - -	- - -	- - -
34. Owenmore - -	Ditto - -	170.	{ 15 Nov. -	25 December	begin. Jan.	- - -	- - -
35. Munhim - -	Ditto - -		{ 15 Nov. -	25 December	January	- - -	- - -
36. Glenamoy - -	Ditto - -		15 Nov. -	25 December	February	- - -	- - -
37. Moy - -	Sligo - -	804.	November -	15 December	1 February	- - -	- - -
38. Easky - -	Ditto - -	51.	November -	December	March	- - -	- - -
39. Ballysadare - -	Ditto - -	260.	- - -	- - -	- - -	- - -	- - -
40. Sligo - -	Ditto - -	150.	December -	Dec. Jan.	1 February	- - -	- - -
41. Drumcliff - -	Ditto - -	28.	- - -	- - -	- - -	- - -	- - -
42. Bundrowes - -	Ditto - -	110.	15 Nov. -	December	February	- - -	- - -
43. Erne - -	Ditto - -	407.	20 Nov. -	December	12 Jan.	- - -	- - -
44. Inver - -	Killibegs - -	43.	end Nov. -	end December	February	- - -	- - -
45. Owentocker - -	Ditto - -	30.	begin. Nov.	end December	middle Jan.	- - -	- - -
46. Owenea - -	Ditto - -	42.	begin. Nov.	end December	middle Jan.	- - -	- - -
47. Clady - -	Dunfanaghy - -	42.	begin. Nov.	middle Nov.	end Dec.	- - -	- - -
48. Lacagh - -	Ditto - -	56.	end October	end Nov. Dec.	6 January	- - -	- - -
49. Rathmelton - -	Ditto - -	100.	1 November	November	12 Dec.	Oct. Nov.	- - -
50. Foyle - -	Carne - -	1,260.	begin. Nov.	December	January	Oct. Nov.	- - -
51. Roe - -	Ditto - -	170.	begin. Dec.	January	February	- - -	- - -
52. Bann - -	Ballycastle - -	2,413.4	begin. Nov.	25 December	begin. Jan.	- - -	- - -
53. Bush - -	Ditto - -	120.	November -	Nov. and Dec.	February	- - -	- - -
54. Glyde and Dee - -	Dundalk - -	280.	- - -	- - -	- - -	- - -	- - -
55. Faue - -	- - -	138.	- - -	- - -	- - -	- - -	- - -
56. Boyne - -	- - -	1,053.	September -	Oct. and Nov.	- - -	- - -	- - -

OBSERVATIONS.

Months most Productive in Quantity of Fish in best condition.	Month most Productive Money Value	
May, June, July	Jan., Feb.,	by nets; there are 11 seines and a few bag nets used outside the mouth; the fish of this river have been greatly destroyed matter flowing into it. If it were properly protected, passes made over the weirs and natural obstructions, and noxious d into the water, the annual produce would, according to the testimony of an experienced witness, be 50,000 Salmon. as the charter fishery at Island Bridge is desirous of a fishing season commencing and terminating early.
March, April, May	Mar., April	
July, August		see of the law in the Slaney. One witness (Hector) states that February is the best month.
May, June, July	Feb., Mar.	Waterford in 1844 was about 20,852 Salmon, weighing 151,646 lbs. This was the produce of the Sair, Nore and Barrow stitles of fish were also sold in Waterford and New Ross; and a considerable portion sent to the Dublin market. There ad weirs on the conjoined Nore and Barrow below New Ross. There is a considerable quantity of fish taken in the snep ster on the Barrow; and a very great quantity taken by this description of net in the tideways of the three rivers.
April, May	March, Ma	
May, June, July	Feb., April,	
June, July	February,	le for the last seven years of the Lismore weir, on the Blackwater, was 21 tons 3 cwt. 2 qrs. 10 lbs. Between this weir pairs of cots and 33 stake weirs; the most valuable of the latter produce about 100 l. a year; while some do not yield 30 l. its above the tideway in the fresh water; the annual average expense of working it is 400 l. There are great obstructions rious modes of destruction are resorted to.
Feb., March, June	February,	Lee under the old laws was for all except proprietors of fisheries; it was not, however, at all observed. The best months are March, April, and the beginning of May. There is a weir on the Lee, the produce of which is very considerable. d 70 nets used in the tideway.
June, July	Feb., Mar.	action of spent fish on the Bandon River. It is fished with both weirs and nets.
Aug., Sept., Oct.	Aug., Sept.	
July, August	July, Aug.	ervation Society on the Snaive and Ballylicky, originally made an application for a change of season: but at the dry inquiry, he expressed it as his opinion, that it would be more desirable to make no alteration in the season at and 6th Victoria, c. 106.
		has been carried on to a most destructive extent in the Roughty. It is stated to have had its origin in preventions to
August, September	Aug., Sept.	table persons are known to be guilty of it.
June, July	Jan., Feb.,	is fished exclusively by a weir, which is half way between the sea and the lake from which the river flows. The
July, August	July, August	the Curran for the last three years was 3 tons 12 cwt. 17 lbs. of Salmon, and 1 ton 11 cwt. 1 qr. 20 lbs. of Trout.
(Upper part) Nov. Feb.	Nov., Dec., Ja	d all through the year with "pushing nets." There is a weir upon it, which has been always fished in November,
(Lower) May June, July	May., June	February. There are six seine fisheries between the weir and the sea, which pay between 150 l. and 200 l. a year rent.
May, June, July, Aug.	April	plication from this river was for a Close Season, commencing the 13th August, and ending the 1st January. This was rictors; but during the inquiry at Killorglin, 13 November 1845, they expressed a willingness that it should extend to upper proprietors require that it should continue to the 1st February.
July, August	July, Aug.	weirs on the Maine, for which rent is paid to the amount of 4 cwt. of salt fish and 4 l. sterling. All these stretch across a stone weir on this river, which was complained of as a great obstruction to navigation, but it was removed in May 1845.
		Geal, unite together; and from their point of junction to the sea, the single river so formed is called the Caheen. The exclusively by nets and rods. There is no fishery of any importance above the tideway. The practice of poisoning nt on the Feal.
		on the Clare side of the Shannon and Clonderlaw Bay, and 25 on the Limerick or southern shore. The average gross is about 50 l. worth of fish each year.
		both by a weir and nets; the weir is very near the sea.
		rier on the Spliddal, two miles from the sea; it is 15 feet in height, and consists of solid rock. There are very fine ts in the upper part of the river; it is fished with rods and nets.
June, July	June, July	fished with rods, nets, and cribs. The Close Season sought for is only for the fishery below the weir; for the part above it the Close Season be from the 1st August to the 12th February.
		d at a rent of 45 l. a year, and comprises the fisheries of Ballinakill Bay, and of the Rivers Dourus and Culfín. The ng river, and very well protected. There is a grating kept on it, at some distance from the sea, during the Open Season, ascending to the higher parts. The produce of the Culfín alone is three or four tons of fish annually.
July	July	d; it is fished with nets and rods. In the month of July there are often 80 Salmon taken in a single haul by the draught
		s, and 80 men engaged in fishing at the Killeries.
		fishery was in the habit of letting it formerly, and was then very glad to get 20 l. or 30 l. a year for it; but in consequence otation lately adopted, 150 l., over and above all expenses, were cleared last year. The Newport is fished by nets alone, progress of being put up.
	January	nets. One season, some years ago, not a single fish was taken up to the 20th August, and after that there were 1,800 Salmon or four days; thus making up in a few days the fishery of the entire year. The cost of protecting this river is 185 l. obstruction upon it, but it has been removed at the expense of the proprietor.
December	December	en at all observed in the Munhim. This river, and the Owenmore, for which different seasons are sought, form one river at om the sea. There is a weir on the Munhim, and another on the conjoined rivers, in neither of which is there a Queen's
		s and nets; the fishery is decreasing, and this decrease is attributed to the observance of the weekly Close Time, and the
April, May, June	April, May	y weirs and nets; the Close Time has not been observed at one of the two weirs.
June, July		reat destruction of both Fry and Spents at mill weirs on this river.
		ways well protected; it is fished by a weir and nets, and is claimed as a "several fishery." The Pollen or Fresh Water Melvin, which is at the head of the Bundrowes. Cross line fishing, which is pursued in this lake, is greatly complained of as
May, June, July	May, June,	held at a yearly rent of 1,200 l.; it is carried on by a weir and nets. The fish of this river deteriorate after the 12th August. l as a "several fishery;" this river formerly yielded 100 l. a year, but the value of the produce has now dwindled down to There are a great many bag nets used outside the Inver, and it is supposed that they take the fish going into the river.
		of bag nets on the coast between Teelin Head, county Donegal, and Mullaghmore, county Sligo; the annual average produce 0 tons of Salmon.
July	July	
June, July	June, July	
Dec., Jan., June, July	Dec., Jan.,	ication was made for a change of season on this river, but during the inquiry at Londonderry, the 10th January 1845, the expressed himself willing to try the effect of observing for three years the Close Season fixed by 5 & 6 Victoria.
July	June, July	is fished by draught nets, which, when in full operation, give employment to 100 persons. There are about 40 stake and Augh. The expenses of the draught and stake net fishery of the Irish Society alone were, in 1844, 2,464 l. 4s. 2d. Thirty-e held by the tenants of Lord Donegal.
June, July, August	June, July, A,	one bag, and four draught nets.
April, June, July	Feb., Mar., A	veir and four draught nets. There are 24 bag nets between Maghligan, county Londonderry, and Ballycastle, county annually 48 tons of Salmon, together with about 900 l. There are seven bag nets at Glenarmi, Cushendal, and Red ; produce of which is about 1,500 Salmon, 10,900 lbs. weight. The Open Season sought for these fisheries is from the ber; the former general fishing time was from the 1st January to September.
August, September	Aug., Sept.	ed by seven seines.
August		t of trap and a stake weir.
August	August	birds and nets. There is 150 l. a year paid for the weir at Old Bridge; the average yearly produce of the Rosnare l. Nine boats fish in the tideway, and each boat takes from 15 l. to 30 l. worth of fish in the season. the period of spawning in the Boyne is particularly defective. One witness only (Mr. Walter Johnson) stated that are the spawning months.

* The obser were restrained from fishing from 12 August to 1 February, 3 Geo. 3, c. 35.

2.)

SALMON FISHERIES, CLOSE SEASON.—ABSTRACT of Information obtained in reference to the EARLY RIVERS, during the Fishery Inquiry, 1844, 1845.

RIVER.	County in which situate.	Produce in the Month of January.	Number of Persons who took Fish before late Act.	Mode of Fishing employed.	SPAWNING.			DESCENT OF SPENT FISH AFTER SPAWNING.			Close Season by Old Laws.
					Begins.	In greatest Quantity.	Ceases.	Begins.	In greatest Quantity.	Ceases.	
Ballinahinch	Galway	1843: 71 Salmon = 806 lbs.	One	Weirs, nets, and rods.	October	Nov. Dec. Jan.	Feb. or Mar.	November	Mar. April	1 June	12 Aug. to 1 Feb.
Barrishoole	Mayo	-	One	Nets	1 Nov.	Middle of Nov.	Mid. of Dec.	March	April, May	June	12 Aug. to 1 Feb.
Bush	Antrim	{ 1843: 15 Salmon = 134 lbs. 1844: 27 Salmon = 241 lbs. }	One	Weir and nets	November	Nov. Dec.	February	February	Mar. April	End of May	Excepted.
Boyne	Meath and Louth	-	Two	Weirs and nets	September	Oct. Nov. Dec.	January	January	April, May	May	Excepted.
Bundrowes	Donegal	-	One	Weir	15 Nov.	December	February	15 Dec.	Mar. April	May	Excepted.
Carra	Kerry	About 14 cwt.	One	Weir	1 Nov.	Nov. Dec.	January	March	Mar. April	May	Excepted.
Curraan	Kerry	63 Salmon = 612 lbs.; average of three years.	One	Weir	November	Nov. Dec.	January	January	April	May	12 Aug. to 1 Feb.
Lacagh	Donegal	60 Salmon = 555 lbs.; average of four last years. 21 Salmon = 97 lbs.; average of six years.	One	Weir and nets	End of Oct.	End of Nov. Dec.	6 Jan.	January	May	May	Excepted.
Laune	Kerry	-	Many	Nets and rods	1 Nov.	Nov. Dec. Jan.	February	February	Mar. April	Beg. May	Excepted.
Lee	Cork	-	Many	Weir and nets	End of Oct.	December	End of Jan.	January	Feb. Mar.	End of April	Excepted.
Lifey	Dublin	-	-	Nets	End of Oct.	November	January	January	Jan. Feb.	March	1 Oct. to 1 Feb.
Maine	Kerry	-	-	Weirs and nets	-	-	-	March	Mar. April	May	12 Aug. to 1 Feb.
Munhim	Mayo	-	One	Weir and nets	15 Nov.	25 December	Beg. of Jan.	February	Mar. April	May	12 Aug. to 1 Feb.
Newport	Mayo	-	One	Nets	End of Oct.	15 Nov. to 25 Dec.	-	March	April, May	May	Excepted.
Rathmelton	Donegal	96 Salmon; average of three years.	One	Weir	1 Nov.	November	12 Dec.	January	Mar. April	May	Excepted.
Sligo	Sligo	-	One	Weirs and nets	Mid. of Dec.	Dec. Jan.	1 Feb.	End of Dec.	April, May	May	Excepted.

REMARKS.—The Lessee of the Ballinahinch Fishery seeks for a Close Season, beginning the 1st of August and ending the 1st of December; but he would not allow fishing in the upper part of the river before the 1st of June. The Lessee of the principal Weir on the Boyne, at Old Bridge, could give no account of the produce: 1507, per annum is paid for this Weir. The Lessee of the Munhim had no accurate account of the quantity of fish taken. The produce of the Sligo Fishery, between the 1st of January and the 12th of February was, in 1843, 261 Salmon = 20 cwt. 24 lbs.; 1844, 156 Salmon = 12 cwt. 7 lbs.; 1845, between 1st January and 1st March, 106 Salmon = 8 cwt. 2 qrs. There was no Salmon taken in August during these years.

EXTRACT from APPENDIX to the REPORT of the FISHERY COMMISSIONERS (Ireland).

"The river of Ballisodare includes the streams of two pretty large rivers, the Arrow, proceeding from a lake in the south-eastern part of the county of Sligo, and the Owenmore, which has a large tributary called the Owenbeg, the first of these flowing from the south-western part of the county and the other from the western. The river of Ballisodare may be said to commence at the point of junction of these rivers, at a distance of about two and a half miles from the sea, in Ballisodare Bay. The entire area of the catchment basin, within which all streams are tributary to Ballisodare, is about 240 square miles. The bridge at the village of Ballisodare is situate about three furlongs from the tideway, and for this distance the river falls over a succession of ledges of rock, terminating in the deepest fall into the tideway itself. At the lowest water, when the tide recedes from the bed of the river below the lowest fall, that bed will be, to the best of my recollection, about 70 feet below the bed of the river under the bridge. Thus, I fancy, '170' was a misprint in Mr. Ramsbottom's letter.* Tradition alleges that one or two salmon were, many years ago, seen above the lowest fall, but none were ever seen so far as the bridge; as one of the falls in the river is surmounted by flat flagstones, and if a salmon could have leaped this fall he must have been instantly washed back again. For distinction's sake, we will call this the upper fall of Ballisodare, as the rest of the rapids offer no great impediment to the ascent of fish. It is right here to add, that in the Owenmore river, at the village of Collooney, about half a mile above the junction of the rivers Arrow and Owenmore, there is a waterfall of greater depth than any at Ballisodare. From this statement it will appear that three artificial passes became necessary, to enable fish leaving the sea to ascend into the various waters within the catchment basin already mentioned. A few salmon from time immemorial were caught in small pools in the tideway, immediately below the lowest fall. These pools constituted what was formerly denominated the Ballisodare Salmon Fishery. My predecessor, with an intention, as I have heard, of breaking the falls, purchased his rights from the then proprietor; but nothing was done during his lifetime. Upon my succession to him, I obtained an Act of Parliament, conferring upon me a several fishery within the Bay of Ballisodare, and throughout all rivers and lakes and their tributaries flowing into said bay, on the condition that I should obtain conveyances from the proprietors who might have any rights of salmon fishing within the Bay of Ballisodare, and from and after my establishment of the requisite passes to enable the fish to ascend. I was led to believe that it was necessary for me to obtain these conveyances from every gentleman having property along the shores of the bay. The great majority of these gentlemen at once made the conveyances to me of the rights they supposed that they had; but one or two of them making extravagant pretensions as to the value of their rights, my proceedings were arrested for several years. Had I insisted, as I ought to have done, that counsel's opinion should be taken as to what rights those gentlemen possessed, I should have ascertained, as I did ultimately, that they had no right whatever under the Act of Parliament. It is only, however, candid to say that I believe that they conceived that they had rights, as I did myself. The preceding is merely intended to explain the delay that took place in my prosecution of the undertaking. Before the salmon-ladders were commenced, several experiments were made by me to introduce salmon into the Ballisodare river, from whence they could mount the Arrow river to its source; but not the Owenmore and Owenbeg, on account of the waterfall at Collooney. Previously to these experiments the average number of fish taken annually in the tideway, immediately below the lowest fall, did not exceed a score.

"My own notes of the earliest experiments having been mislaid, I am obliged to adopt those of Mr. Culbertson, which are, I am sure, perfectly correct. He states that, in 1837, nine fish were caught, and placed in the river above the Ballisodare bridge, their average weight being six pounds; that in 1838, 15 fish were put up, averaging about five pounds; in 1839, 16, averaging also five pounds; and he adds, that during the years 1838, 1839, and 1840, he watched very closely for fry, and did not see any, nor did he hear that any spent fish were seen in the river. He also states correctly, that at this time I thought it needless to persevere; and during the succeeding years, up to 1846, no increase of numbers of fish was observed below the lowest fall. In the year 1846, the fisherman again received orders to put up all the fish he caught, and Mr. Culbertson mentions that the number so put up that year was 18. Nothing was done during the year 1847. It seems doubtful whether or not a few fry were seen in 1848. On the 24th December 1851, three pairs of breeding fish were caught in the river Moy, by permission of the lessee, and transported by my then land agent, Mr. Fetherston H., to the River Owenbeg, already alluded to. A small quantity of ova was also deposited in this river on the 26th of December, by one of my tenants. They were placed in the river at a distance of seven miles above the fall at Collooney, and thus about 10 miles from the sea. In the year 1852, the lowest ladder was completed, and Mr. Culbertson noted that six fish were taken in the river above this ladder, and put up above the upper fall of Ballisodare. During the summer of 1853, this gentleman was absent from home, and, to the best of my recollection, few fish were put up; but early in the year, above the Collooney fall, in the Owenbeg river, and in that portion of the river between the junction of the Owenbeg and the Owenmore and the Collooney fall, large numbers of salmon fry were seen, and many taken with trout rods, until, two of them

having

* On reference to the MS. we find that it was not a misprint; but there may have been an error in recopying the letter before it reached us.—ED.

Appendix (E).

having been sent to me, I explained to those fishing that they were destroying salmon. I have preserved these two fry which were furnished with their migratory scales. The fry were also seen by Mr. Culbertson at Ballisodare. Under date, 12th May, he says, that he had sent another of the fry to Sligo, and that it was pronounced to be a salmon fry, and adds, that at that time the river was still full of them. On the 17th May, he wrote to say, that the fry had nearly left the river. It is right to call to mind here the fact that, up to this time, and indeed until a year later, no salmon could ascend the Collooney falls, and none having been put up above them, the fry seen and taken in the Owenbeg and Owenmore rivers, could have been no other than the produce of the three pair of salmon introduced to the river by my then land agent, and of the spawn deposited there by my tenant. At a later period of this year (1853), the Collooney ladder was finished, as was also, about the same time, the ladder originally projected to avoid the upper fall at Ballisodare. This ladder, however, did not answer its purpose in consequence of the outlet entering the edge of the river at a considerable distance below the impeding fall. I never heard of any salmon having been seen in this ladder, and, therefore, as they were taken under the upper fall, as will be hereafter mentioned, I have reason to believe that they missed the entrance, and certain it is that they passed it in considerable numbers. In consequence of this fact the upper part of this ladder was turned towards the foot of the fall, but it was not completed till the following year; consequently the lower part of it was totally abandoned. Mr. Culbertson states that, 'in 1854, the fish came up in May, passing the lower ladder without difficulty. The upper one being still unfinished they could not pass the upper fall, although several were seen jumping there.' The upper ladder here alluded to by Mr. Culbertson, was the one in progress of construction, to supersede the one which failed. We draughted that year under the upper fall, and according to Mr. Culbertson's notes, four fish, eight ten, twelve and fourteen pounds, were taken on the 15th May; four more on the 17th May, seven, ten, twelve, and twelve pounds; on 24th, two, weight not given; in June, twenty-one fish, chiefly small; in July, fifty-seven, from five to seven pounds each, generally, but some of them ten and twelve and fourteen pounds; in August, seventy-eight; in September, nine; in October, two; and in November, two. Thus, 179 fish were netted below the upper fall and put up the river, as were also 77 white trout. No fry seen this year. Again I extract from Mr. Culbertson's letter: 'In 1855, the upper ladder at Ballisodare was finished, and the fish had free run up the river. A good many fair-sized fish were seen jumping at the upper fall, and after tiring themselves were seen to take the ladder. Several spent fish were seen returning; a few more were marked. No fry yet.' We fished a little this year during the entire season, and took 188 salmon, averaging over five pounds each. Several salmon were killed by otters on the breeding-grounds of rivers Owenbeg and Arrow during the preceding close season. In the months of April and May, 1856, Mr. Culbertson saw a good many fry in the river, and remarked that at first they were brown, with spots like finger-marks on the sides; that in May many were silver-coloured, and lost the spots on their sides; yet there were still many of the brown ones, and that no grilse had been seen this year in the river, and that he had watched closely for them in June and July. He also adds, that he got a spent fish that had been marked the year before, which appeared to be one that would have weighed fourteen pounds, if in good condition. The largest that had been marked in 1855 was about eight pounds. We took no fish this year (1856) before the 23th June, and only fished on thirteen days. We took 18 fish, averaging over seven pounds. Towards the close of this year my present land agent, Mr. Leech, determined to form a rill for the artificial propagation of salmon, at a short distance above the village of Collooney, adjoining the Owenmore river. It contained 15 compartments, and was capable of holding from 60,000 to 100,000 ova. It is not my wish to introduce into this communication, already too long, any account of this rill and its results; but should you, or any of your readers desire it, I shall be happy to make it the subject of a subsequent paper. 'In 1857,' (I quote from Mr. Culbertson) 'fry were seen about 1st April. They were larger-sized and quite silvery; about six inches long. About the 10th the river seemed full of fry, but apparently a different brood from the first, as they were four inches long, and I marked some of them by taking off the dead fin near the tail. On 26th June saw first grilse at lowest fall. No spring fish had appeared. By 1st July, they were very plentiful, and have so continued to the end of the season. Very few large fish; they were all grilse. We got, on 19th December, two fish, about four pounds each, that Brown (the fisherman) had marked in April 1856. None of the fry I marked in spring yet seen.' We did not fish at all in 1857. I appointed an inspector of the fishery in the early part of this year, and directed him to keep a diary, as a record of all remarkable occurrences connected with the fishery, from which I take the following extracts:—

" '1857. August 24. Saw several salmon in the hole under the fall of Collooney.

" 'September 24. The river between Ballisodare and Collooney is now well stocked, salmon being visible in almost every deep hole, and a number being congregated between Collooney bridge and the hole under the fall.

" 'October 3. A flood being in the Owenmore, I shut the water off the Collooney ladder to see if there were any fish passing up, and found seven salmon and one white trout in the pond. Of these seven, five were males.

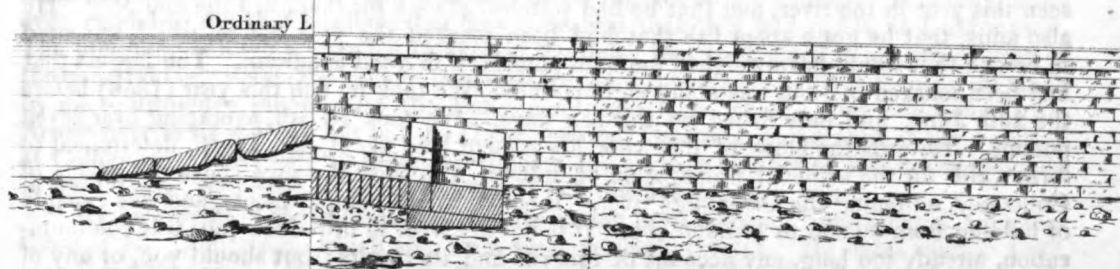
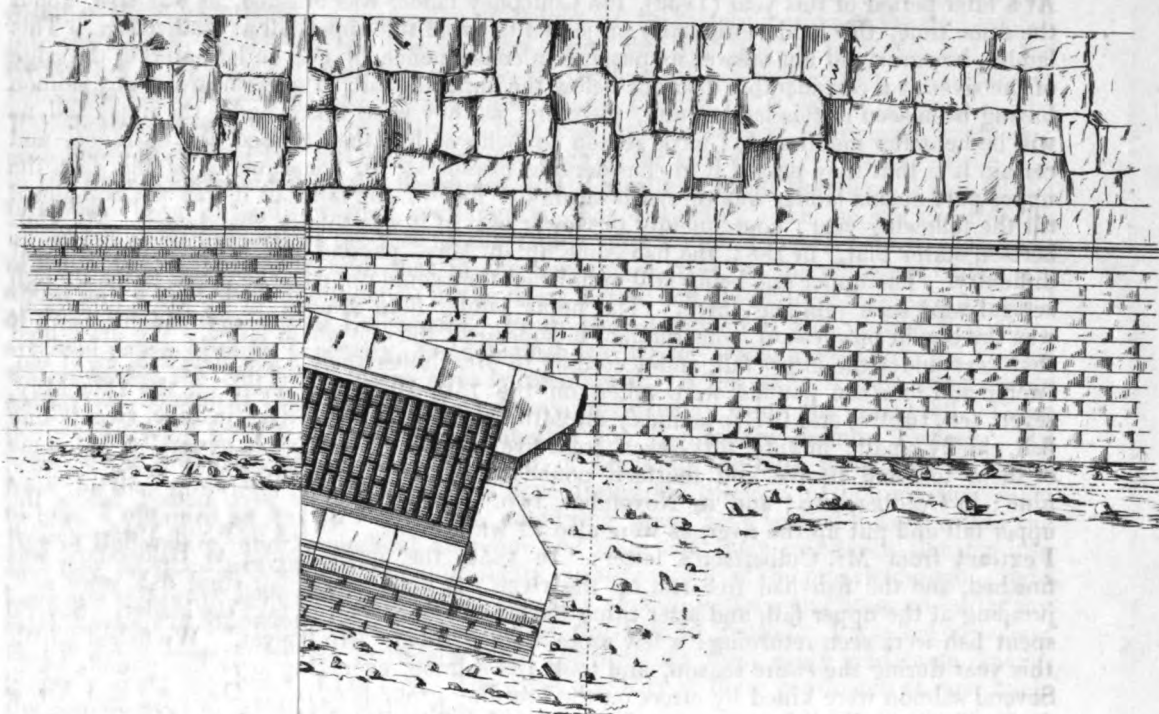
" 'October 13. Examined Collooney ladder, and reported to Mr. Leech that there were salmon in it. Twenty-seven salmon were found in it, the great majority of them being females.

" 'October 15. Lowered the sluice of Collooney ladder again, but got no fish.

" 'October 28. Again examined ladder, and got three male fish.

" 'October 30. Four male and two female fish taken out of ladder, and put up.

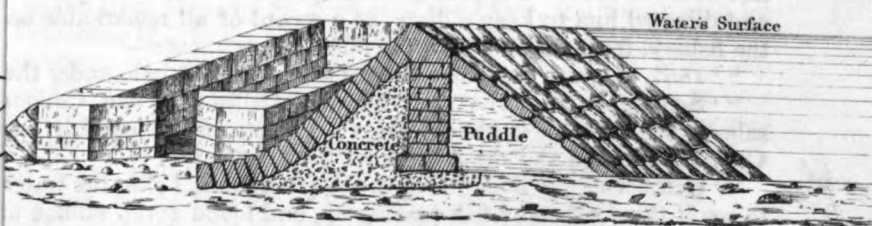
" 'November 3.



Approved

*Wm. L. L. L.
W. L. L.
W. L. L.
J. R. M. L.*

SECTION on the Line i. j.



ber 1852.

17th

- “ ‘ November 3. Sixteen male and eight female.
 “ ‘ November 4. There were 10 fish in the ladder, which were not removed, as Mr. Leech was not present.
 “ ‘ November 5. Nine fish not removed.
 “ ‘ November 6. Seven ditto, ditto.
 “ ‘ November 7. Eleven ditto, ditto. I went to Ballisodare on this day, and saw several large fish leaping at the upper ladder.
 “ ‘ November 9. We put up from ladder 24 male and 15 female fish.
 “ ‘ November 23. Lowered the sluice again; 25 male and 20 female fish found in pond. A few of these were large fish, say 14 or 15 pounds weight.
 “ ‘ November 30. The fish are now beginning to spawn in great numbers in the Owenbeg River.
 “ ‘ December 3. Thirty-six male and forty-five female fish found in the ladder.
 “ ‘ 1858. January 5. Saw a few spawning beds in Owenmore.
 “ ‘ January 9. In River Arrow and tributaries, found 29 salmon redds.
 “ ‘ February 14. Walked the Kilmorgan River (a tributary to the Arrow), and counted 21 redds.’

“ In the early part of this year, 1858, we seldom fished. In the month of February we took five fish; in March, three; in April, two; in May, ten; in June, thirty-nine. We did not, in fact, begin to fish regularly till the 1st July. During this month we took 868 salmon, and up to the 20th August (the close of our season), 530 more, the year's take averaging very little more than four pounds each. Mr. Culbertson's notes on this year are,—‘ Spring fish showing in February. One of nine pounds, taken in the net, was a fry marked by Brown in 1856. In March got another about the same weight. Only a few fish through this month. Fry coming down in April, and more plentiful in May, but I do not think so many are in the river as last year. On 13th May saw nearly 100 jumps from six to eight o'clock in the evening; they were from eight to twelve pounds weight. On 9th June saw first grilse at lower fall; about the end of the month they were very plentiful. Among the fish taken by the nets on 6th July, seven were fry marked by me last year, and they weighed five-and-a-half to six pounds each.’ Since the end of the close season, many reports have been sent me relative to the numbers running up. From my inspector's book I take the following:—August 28. At Ballisodare, numbers of salmon in every part of the river between bridge and lowest fall. September 1. Collooney ladder literally full of fish. They did not run in such numbers last year until November, being over two months earlier this year. September 6. Plenty of fish immediately above Collooney bridge. September 25. Collooney ladder swarming, and plenty showing in every place between bridge and fall. October 3 to 6. Heavy floods. Collooney ladder resembles a steeple-chase, as we see them clearing the steps in pairs, and some very good fish. October 8 & 9. Plenty of fish still on the run. October 16. I have been watching the salmon jumping and playing at Collooney fall and ladder. I have visited the ladder daily this week, and, from the numbers in it, am convinced that they could be removed from top of ladder with the hand. November 27. Great numbers of fish in Collooney ladder.’ In addition to these notes of my inspector, one of my water-keepers reported having counted 267 salmon in one hour ascending the Collooney ladder; and Mr. Culbertson has written to me to say that he reckoned 100 in less than half an hour making up the rapids at Ballisodare. On yesterday, December 2, there were so many fish in the pond at Collooney, that Mr. Leech took up no less than six at once in a common landing net.

“ *Edward J. Cooper.*

“ Markree Castle, December 3, 1858.

“ P. S.—Since my letter was written, the Earl of Enniskillen has visited my fishery; and I extract the following from his notes entered in inspector's book:—

“ ‘ On the 9th (Dec.) I visited Collooney ladder, and saw immense quantities of fish running up. Frequently saw four fish at the upper step jumping together. On the 10th again at Collooney. Not nearly so many fish moving this day; counted at upper step 19 in five minutes. Turned off the water, and put up 256 fish. This day (11th) counted 102 fish jump at the upper step in five minutes. Turned off the water; the pond actually alive with fish, in general larger and fresher from the sea than those of yesterday. Put up 246 fish, and then stopped, as the fish were getting sick in the pond. I am confident that we did not take half the number out, and that we left from 300 to 400 in the pond.’ ”

APPENDIX F.

MEMORANDUM for Sir JOHN STEWART RICHARDSON, of Pitfour, Bart.

Appendix (F.)

By the Act 4 & 5 Will. 4, c. 67, obtained by the town of Perth for improving the navigation of the River Tay, it was provided, that the damage to any of the salmon fishings in the River Tay should be made good to the proprietors. The Act contemplated damage both during the progress of the works, and permanent damage after they were completed; and it provided a specific mode of ascertaining the damage to individual stations and proprietors, as it was assumed that the fishings, as a whole, would not be injured. For this purpose it provided that the produce of the whole river and of the fishings of each proprietor during five years prior to the commencement of the operations, that is, from 1830 to 1834, should be ascertained; and thereafter during the seven years over which the operations extended to 1841, and five years thereafter to 1846, the actual take of each proprietor within the bounds of the operations, and the take of the whole river in each of these twelve years, and the relative proportions which they bore to each other, compared with the period before the commencement of the operations, should be fixed, and the deficiency in salmon and grilse converted into money, at the prices in the London market for the year.

This provision of the Act was carried into effect so far as regarded the seven years during the operations, and five years after their close, by submission to Sheriff Barclay, who annually issued a decree arbitral, declaring the amount of deficiency in salmon and grilse on each proprietor's fishings, and the money value thereof. Under these annual decrees arbitral by Sheriff Barclay considerable sums were paid to those proprietors whose produce was proved to be below their expected proportion of the whole, and among others to Sir John Richardson or his tenants, according as the bargain was made at different times.

The object of the provision for taking the averages during five years after the close of the operations in 1841 to the year 1846, besides indemnifying proprietors for the actual loss in those years, was to ascertain what, if any, was the permanent damage inflicted, by a comparison of the results of these five years with those of the five years preceding the operations, and in Sir John Richardson's case it appeared to be 547 salmon and 1,498 grilse, and the average money value of that average annual deficiency 436 *l.* 19s. 5½ *d.*, and in the case of Sir Thomas Moncrieff the amount of deficiency was somewhat of similar amount.

The Commissioners of the navigation denied that the deficiency in either case arose from their operations, and their liability for any compensation on account of it. A submission to the late Lord Rutherford was entered into for settling the amount of compensation; and, after a very lengthened proof and hearing of counsel, the sum to be paid to Sir John Richardson in respect of permanent damage was 4,665 *l.*, or a little more than ten years' purchase of the portion of rental which he had lost.

At the time of this award Sir John was very much dissatisfied with the result, as not sufficient indemnification for his loss. Circumstances within the last few years have led to a considerable restoration of value to his fishings; but this has not occurred in the case of Sir Thomas Moncrieff, and he has been a heavy sufferer by the whole business, while at the time the award was pronounced both parties were considered to be in *pari casu*.

But a comparison of the rental of the Pitfour Fishings, from 1828 to 1841, which varies little from 1,500 *l.*, with the rental which they yielded subsequent to the operations of the Navigation Commissioners, from 1847 to 1857 inclusive, or eleven years, will show, that even although Sir John's fishings should now permanently return to their former annual value, the sum allowed him by Lord Rutherford's award did not reimburse him for his loss during that eleven years. If he had drawn his old rental at 1,500 *l.* for eleven years it would have been

But the actual rents drawn from tenants, and during two years, 1852

and 1853, when he had them in his own hands, and did not realize from them, the sums here stated for these years were as follows:—

1847	-	-	-	-	-	-	-	-	£. 1,030
1848	-	-	-	-	-	-	-	-	1,055
1849	-	-	-	-	-	-	-	-	945
1850	-	-	-	-	-	-	-	-	878
1851	-	-	-	-	-	-	-	-	932
1852	-	-	-	-	-	-	-	-	647
1853	-	-	-	-	-	-	-	-	647
1854	-	-	-	-	-	-	-	-	666
1855	-	-	-	-	-	-	-	-	966
1856	-	-	-	-	-	-	-	-	1,063
1857	-	-	-	-	-	-	-	-	1,071
									9,900 - -

Sum received under Lord Rutherford's award - - - £. 6,600 - -

Difference, being loss - - £. 4,665 - -

Difference, being loss - - £. 1,935 - -

In

In the year 1857 Sir John was thus a loser of 1,955*l.*, after giving credit for the sum of compensation paid him; and if his fishings had not improved in rental, he would have been, besides, a loser of all the difference in time to come. Fortunately for him, in 1858 they were let for three seasons, of which the present one is the last, at a rent of 1,437*l.* Whether this rental may be maintained on a new lease or not cannot be said with certainty at present; but even supposing it was maintained, it does not yield to Sir John the proportion of the rental of the river which he formerly had. When his rental was 1,500*l.* prior to 1841, the rental of the river was on an average about 10,500*l.*, whereof he had a seventh. It is now 14,000*l.*, and with a rental of 1,437*l.* he has not a tenth of the whole; and he has therefore lost his share of the subsequent and recent improvement which has taken place on the value of the fishings generally. That improvement has arisen not from the increase of produce, but the rise on the average price and wider market afforded by railway communication.

While, however, Sir John Richardson has received this sum of 4,665*l.* as final compensation, and annual payments of considerable amount during the progress of the works, it is evident he has not been a gainer, but, after all, a considerable loser, and that if the partial restoration of his fishings had not now occurred, the sum allowed him, as it has proved to be in the case of Sir Thomas Moncrieff, would have been totally inadequate to replace the heavy loss of rental which both at that time were proved under the Act to have sustained.

Mackenzie & Dickson, Solicitors, Perth,
Factors for Sir J. S. Richardson.

Perth, 27 June 1860.

Appendix G.
—

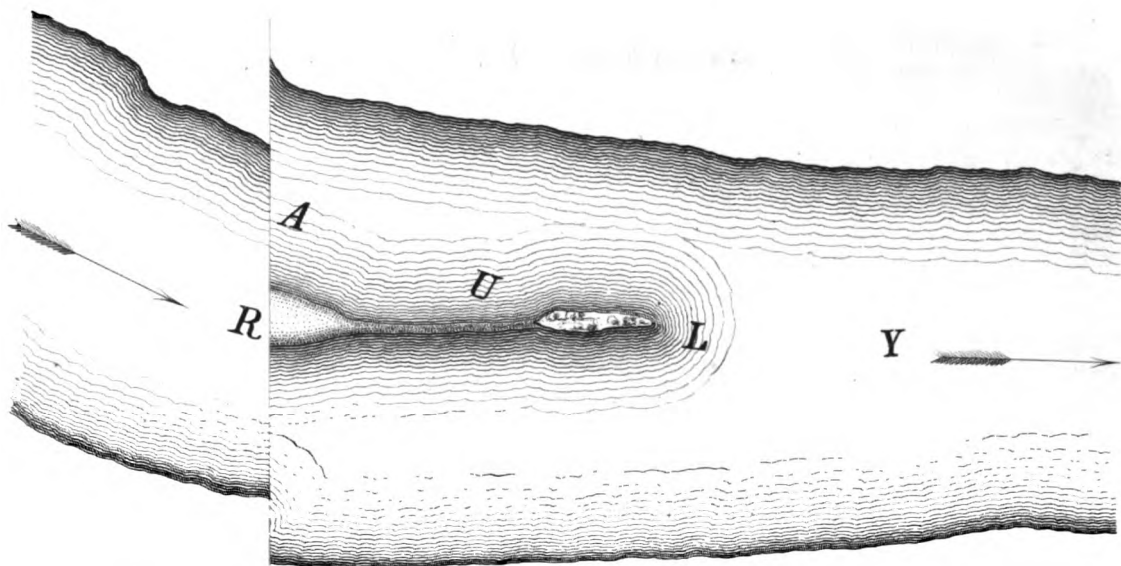
APPENDIX G.
—

SKETCH of CRUIVES on RIVER BEAULY, at BEAUFORT CASTLE.

(See Sketch annexed.)

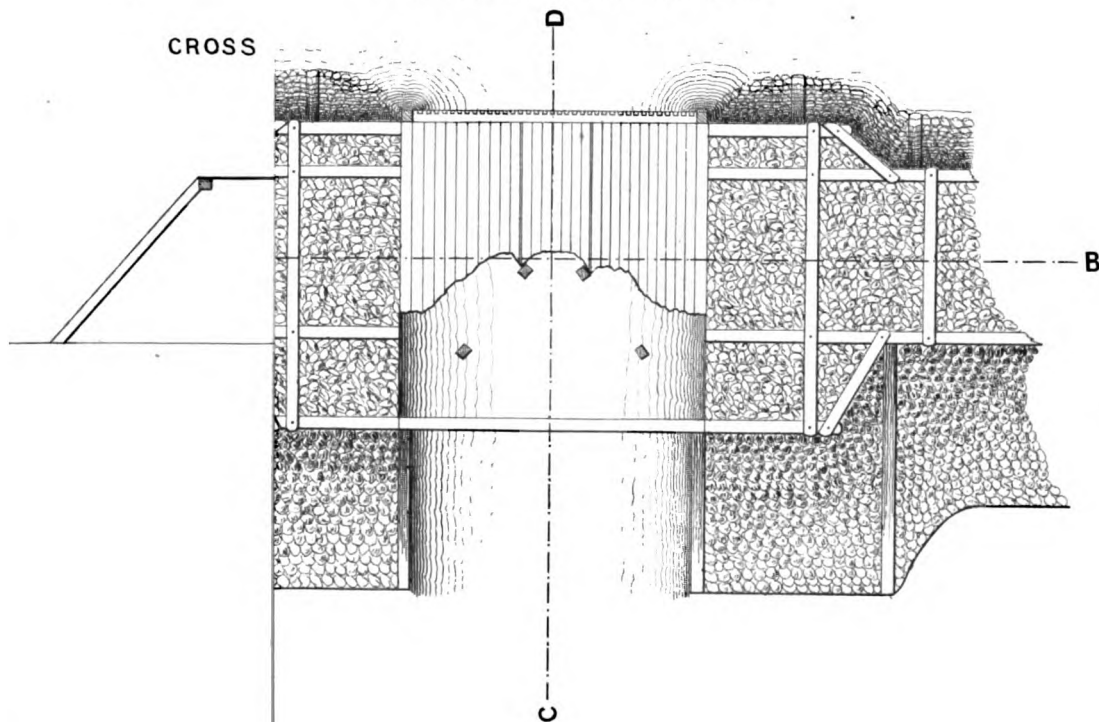
CASTLE.

SCALE OF FEET.



ENLARGED PLAN OF BOX.

CROSS



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ABERDEENSHIRE COAST. Very close fishing of the coast between Aberdeen and Stonehaven, *Hector* 2782-2784—Amount of the rental of the fishings on the Aberdeenshire coast, *Paul* 3507. 3523—Impracticability of using the net or coble, or anything but the bag net, on the coast between Aberdeen and Stonehaven, *ib.* 3507—Nature of the right under which the proprietors hold; doubt in two cases whether there is a right by prescription, *ib.* 3508-3520—Probable mode of fishing on the Aberdeen coast previously to the use of stake and bag nets; in some places stell nets were used, *ib.* 3514-3523—Considerable increase in the quantity of fish taken between Aberdeen and Stonehaven; the nets have not been much increased, *ib.* 3523. 3524. 3546, 3547. 3589-3591. 3627-3631—Large increase in the rentals of the fisheries near Aberdeen, *ib.* 3523. 3627, 3628.

Acts of Parliament. Witness delivers in a copy of all the Acts relating to salmon fishings in Scotland, from that of Robert the First in 1318 to that of Queen Anne in 1705, *Lord Advocate's Ev. p.* 5-11—Very great advantage if all the old Acts were repealed and consolidated, *Lord Advocate* 58.

Act Robert 1, c. 12 (1318). With regard to the limitations which have been imposed by statute upon the mode of fishing, the first legislation on the subject dates as far back as Robert the First in 1318, *Lord Advocate* 6—Difficulty experienced as to the meaning of portion of the Act of Robert the First; views of witness on the question, *ib.* 7, 8.

Act 9 Geo. 4, c. 59. Satisfactory working on the whole of the Act 9 Geo. 4, c. 59, *Jopp* 257.

Act 7 & 8 Vict. c. 95. Reference to the Act 7 & 8 Vict. c. 95, for the purpose of applying certain penalties to sea fishing, as dealing with the subject in a very loose way, *Lord Advocate* 14-17.

Adam, Alexander. (Analysis of his Evidence.)—Has had an extensive experience of salmon fisheries; is now connected with the Aberdeen Fishing Company, 572-574.—There is no doubt but the production of the river fishings is much decreasing, 575, 576—The decrease is owing mainly to the large number of bag and stake nets upon the coast, 577, 578. 605, 606—Impracticability of a Saturday slap in either bag or stake nets, 579. 607—Improvement if the close season commenced about the 26th August, 580-582. 617—The close time might terminate twenty days earlier if it commenced twenty days earlier, 583-586.

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Reference to a return prepared by witness relative to the sea and river fishings with which he is connected; and showing that whilst the former leave a large profit, the latter do not pay, 601-604—Great falling off in the weight of salmon and grilises, 608, 609—Stake and bag nets should be abolished altogether, 610. 616—Destruction of salmon when in the nets, by seals, 611-614—Deleterious substances from mills do not destroy many salmon, 615—Witness's evidence applies only to the Dee and the Don, and the sea-coast about Stonehaven, 618, 619.

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The fishings about Stonehaven are held for short terms under letters from the Commissioners of Woods, &c., 621-625—Value of a bag net, 626—Also of a stake net, 627-629—Doubt as to the numerous bag nets in use {continuing to be remunerative, 630, 631—Frequent loss of nets, 632—The fish have fallen off generally in the stake nets this year, 634—Particulars as to the quantity of injured fish caught in the stake and bag nets, and thereby wasted; 635-639—Suggestion that no part of the meshes of the nets should be less than three inches in size, 640, 641. 659-664.

The Aberdeen Company take many more fish in the sea than the rivers, 642—Deterioration in the quality of the salmon when the fish has been for some time in the fresh water, 643-646—Further statement in favour of the abolition of stake and bag nets and also of cruives, 647-657—The net and coble should alone be used in rivers, 657, 658—Suggested abolition of feath nets as used in the Don, 665, 666—Erroneousness of an impression that salmon spawn in the sea, 667, 668.

Age of Salmon. Opinion that salmon may live to a great age, and that their size increases with their age; the old fish still continue to breed, *Ffennell* 2551-2554.

Ailsa, The Marquess of. (Analysis of his Evidence.)—Proprietor of salmon fisheries in the Doon and of the fisheries at its mouth, as well as of the greater proportion of the cruives in Ayrshire, 1033, 1034—Particulars relative to the Doon fishings, and the effect thereupon of an agreement between witness and the upper heritors in 1849, relative to the use of nets, &c.; refusal of the latter to discontinue netting when the agreement expired, 1035-1044—Reference to certain reports in 1855 upon the Doon; non-observance of recommendations therein relative to the dam dykes, &c., 1045-1048. 1092.

Proper slaps should be enforced in all dam dykes and sluices and mill heads should be so managed that the fish cannot get into them; importance of this in the Doon, 1049-1051. 1069. 1072. 1090, 1091—Nature of the obstacles to the ascent of the fish to the spawning grounds in Doon river, and to Loch Doon, 1054-1068—Value of the Doon as a rod-fishing river, 1070, 1071. 1089—Practicability of applying the Sunday slap to stake nets and bag nets, 1073-1078—The close time in the Doon, &c., might commence on the 10th August, 1079-1082—Rod fishing might continue to the 14th September, 1080. 1086-1088—The close time should still continue till the 1st February, 1082-1085—Good reputation of the Doon as a fishing river, 1089.

Allen, Robert. (Analysis of his Evidence.)—Lessee and manager for the last nine years of Lough Foyle salmon fishings, 3773, 3774—Prejudicial effect of the Irish Fishery Act of 1842 upon the fishings in the Foyle, 3775-3778—Voluntary expenditure by the river proprietors on the Foyle for the protection of the fishings, whilst the coast proprietors contribute nothing beyond the license duty; expediency of the latter paying towards the preservation of the fish, 3779. 3797. 3886-3894. 3900-3904—In the Bann there is no voluntary contribution, as it is felt that the coast proprietors intercept the fish to a great extent, 3779. 3791-3797. 3895-3897.

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Anderson, John. (Analysis of his Evidence.)—Fishmonger at Edinburgh; is lessec of salmon fishings in the Forth and elsewhere, 1256-1260—Falling off since 1832 in the fishings in the Forth; some years are still very good and some very bad, 1261-1264—Witness has a cruive about two miles above Stirling, and fishes with a net and coble, 1265, 1267—A good many fish are taken by means of the cruive, but if it were done away with, and also the stake and bag nets in the sea, the fishing would be much improved, 1268-1280.

Improvement if the close time in the Forth commenced not later than the end of August and terminated by the 1st January; larger fish which would thus be secured, 1280-1283, 1290-1295—The Sunday slap could be applied in stake nets, except in rough weather, 1286-1288—Extensive destruction of salmon fry or moults at the mill races in the Forth; suggestion for preventing this, 1296-1304—Great injury to the fish by noxious liquids being allowed to flow into the river from gas works, bleaching grounds, and paper mills; necessity of some means for enforcing the remedy in such cases, 1305-1319, 1321—Destruction of many salmon fry in the Forth by means of "yairs," 1320—Effect upon the quality of salmon through their having been for some time in fresh water; this effect is different in different rivers, 1322-1331.

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Approach of Salmon from the Sea. Habits of the salmon to approach the mouths of the rivers along the coast, so that the prohibition of fixed engines merely near the mouths of the rivers would not be a sufficient protection, *Russel* 687-695—Impression that the salmon come to the mouths of the rivers singly or in twos and threes, and there congregate into shoals, *Hogarth* 451-458—As a rule, the fish come to the mouths of the rivers from the north, *Rutherford* 1419, 1420.

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Artificial Breeding of Salmon. Doubt whether the artificial breeding of salmon in the Tay has been productive of much good, *Rutherford* 1452—Good effect of the breeding ponds in the Tay, *Dougall* 2028-2034; *Dunn* 3220, 3221.

Assessment for Protection of Fisheries. Every owner of a fishery in Scotland should be required to contribute towards the assessment for water bailiffs, &c., *Russel* 760-764—The river proprietors should pay for protection against poaching, but the injury done by fixed nets on the coast should first be removed, *Dunbar* 993, 994—Approval of the owners of the sea fishings being assessed for the preservation of the river fishings; how this might be done, *Brown* 1887-1890, 1896-1903, 1913—Advantage if a rate instead of a license duty were imposed on each bag net, *Allen* 3886-3891.

Satisfactory practice in Ireland under the Act of 1848, in regard to the assessment of the fisheries for the purpose of protection, *Fennell* 2344-2347—The fisheries on the Blackwater should be assessed more equitably, and the law should be enforced, *Foley* 3978-3982.

Recommendation that, for the purpose of providing the funds necessary for carrying into effect the provisions of the proposed Bill for Scotland, the several fisheries should be assessed, and that a duty be imposed on nets and on rods used in salmon fishing, *Rep.* p. xi, xii.

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Ayrshire Rivers and Coast. Witness produces a plan of the Ayrshire rivers, *Catheart* 1461—Complains that out of eighty-one dam or mill dykes in these rivers there are only two with a passage for the ascent of the salmon, *ib.* 1462-1471, 1480—Liability to great expense at law adverted to as the reason why steps are not taken to enforce the provision that

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CLOSE TIME (ANNUAL):

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2. *Evidence as to the Importance of an earlier Close Time, with Suggestions as to the Date of Commencement and Termination.*
3. *Objection to an earlier Termination of the Fishing Season.*
4. *Advantage of a uniform Close Time.*
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1. *Past and present Regulations on the subject of Close Time :*

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Dissent from the opinion of the Lord Advocate, that the Crown should not make its rights, in respect of salmon fishing on the sea coast, a source of revenue, *Howard* 100, 101. 106, 107—Way in which the Crown rents for the fishings have been calculated, *ib.* 102—Transfer of the management of the Crown property in Scotland to the Commissioners of Woods &c. in 1832, at which period there were no leases for a term of years current, *Watson* 125—As to leases having been granted at 1 *d.* Scots, these were old grants before the Commissioners of Woods &c. had anything to do with the question, *ib.* 128. 131, 132—Practice of the Commissioners of Woods &c. not to make any grant in fee for a small consideration, but to see that the full value is paid for the fisheries &c. under their charge, *ib.* 148-152—Duty of the Commissioners to see that a fair revenue is obtained from the fishings, *ib.* 180—Object, other than that of revenue, of the short terms of the leases granted since the decision in Gammell's case, *ib.* 180.

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CRUIVES:

1. *State of the Law in regard to the Maintenance or Erection of Cruives.*
2. *Character of this mode of Fishing in Rivers.*
3. *Ireland.*
4. *Question of the Abolition of Cruives considered.*

1. *State of the Law in regard to the Maintenance or Erection of Cruives:*

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Necessity of permission from the Crown, before the erection of new cruives, *Watson* 159-165—Legality of the use of cruives in rivers, provided they are used under a Crown Charter, *Hogarth* 429, 430. 432—Legality of cruives in rivers, but not in estuaries, *Lord Advocate* 4106-4117. 4148—Right to erect cruives, further considered; absence generally of any right to put up additional cruives, *ib.* 4139-4146.

State of the law in regard to cruives, adverted to by the Committee; legality of cruives, under certain conditions, in rivers whilst they are illegal in a river from the point where the flow and ebb of the tide begins, down to the sea, *Rep. p.* v.

2. *Character of this mode of Fishing in Rivers:*

Cruives are the commonest mode of fishing by fixed engines in rivers, *Lord Advocate* 8—Witness hands in a drawing of a cruive, *ib.*—Destruction through the cruives of the spawn or ova, *Adam* 586. 656—The cruives kill a good many fish, and also obstruct their passage, *Russel* 749, 750—Unfair way in which cruives are generally worked, *Dunbar* 887-990—Expediency of a heavy penalty, properly enforced, where the cruives are not fairly worked, *ib.* 991-993.

Undue obstacles through the cruives to the passage of the fish, *Brown* 1879-1881—There should be longer slopes in the cruives, *Dougall* 1988—Cruives are to some extent objectionable but are not, in any great measure, destructive, *Heaton* 2887, 2888—Effect of cruives to obstruct the passage of the salmon, and to facilitate their capture by sweep or draught nets, *Gray* 3104-3124—Approval of the requirement of a passage in the cruives, as in Ireland, *Tytler* 3373, 3374—Cruive dykes, where there is only one proprietor, should be fished with close bakes, *Johnston* 3504—Sketch of cruives upon the River Beaul, *App. p.* 446.

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3. *Ireland:*

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3. *Ireland:*

Provisions in regard to a "Queen's gap," being made in the cruive weirs; unsatisfactory state of the law on this point; recommendation that a gap for the free passage of the salmon, be enforced in every cruive weir in the country, *Efennell* 2398-2408. 2534—Impropriety of applying a law of prohibition to cruives in Ireland, as well as to bag or stake nets; direct right given by charter to the use of the former, but not of the latter, *ib.* 2533-2536.

4. *Question of the Abolition of Cruives considered:*

Suggestion that cruives be prohibited altogether; difficulty hereon, *Lord Advocate* 11. 39. 70-73—Cruives in rivers are doubtless legal, but their suppression would be no hardship, if fixed engines in the sea were suppressed, *Jopp* 199. 234-236; *Davidson* 377; *Hogarth* 450; *Russel* 675—Cruives should be abolished as well as stake and bag nets, *Adam* 610. 616. 647-657; *Young* 812. 863. 868. 893; *Dunbar* 957; *Cathcart* 1547, 1548.

When there is more than one proprietor in a river, all cruive dykes should be abolished, that is concurrently with fixed engines on the coast, *Young* 813-822. 864.; *Dunbar* 1031, 1032—Improvement if cruives were disallowed, *Speedie* 1390; *Rutherford* 1444—All cruives in rivers should be abolished, compensation being given if necessary, *Grant* 1778—Reasons why cruives should be retained whilst other fixed engines should be abolished, *Tytler* 3344-3346. 3367-3372.

The Committee consider that Cruives should if possible be abolished, together with other fixed engines, *Rep.* p. xi.

See also *Fixed Engines.* *Net Noble.* *Sweep Nets.* *Weekly Close Time.*

D.

Dam Dykes. See *Cruives.* *Mill Dams.*

Damaged Fish (Stake and Bag Nets). Particulars as to the quantity of fish damaged or injured in the stake and bag nets, and thereby wasted, *Adam* 635-639—Injury to the fish when knocked about in the nets in rough weather, *Russel* 681. 685; *Dunbar* 971; *Rutherford* 1435—The occasional damage of the fish, when in the nets, by storms, is not great, *Brown* 1865, 1866. 1919; *Dougall* 1981, 1982. 2039-2043; *Bissett* 2272, 2273. 2292-2294; *Hector* 2818; *Johnston* 3428; *Paul* 3577; *Allen* 3882, 3883.

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Stake and Bag Nets. *Supply of Salmon.*

Dee and Don Rivers. Witness hands in a pamphlet, which he wrote with reference to the question of the proprietors of the Dee and Don taking steps for the improvement of the fisheries, *Jopp* 191—Great decline in the fishings of the Dee and Don, in consequence of the use of bag and stake nets in the sea fishings, *ib.* 195, 196, 246, 261, 262—Practice as to cruives and dam dykes, &c. in the Don, *ib.* 228-233, 255, 256—Doubt as to the salmon in the Dee or Don being largely destroyed by deleterious materials from paper mills, *ib.* 238-245, 263, 264.

There are no cruives or dam dykes upon the Dee, *Davidson* 310, 415—There is a cruive upon the Don; witness cannot say whether it is properly constructed, *ib.* 312-314—Many fish do not get up the rivers in the early part of the season, *ib.* 315, 316—System of assessment on the rent of the fishings, whereby the number of bailiffs on the Dee and Don are supported, *ib.* 350-357.

Great impurity of the Dee and detriment thereby to the fish, *Hector* 2902; *Gray* 3078, 3079—Very insufficient protection in the river Dee, *Gray* 3047-3052—Sundry causes, other than the stake and bag nets, which account for the diminution of salmon in the Dee, the Don, and other rivers, *ib.* 3077-3100, 3111.

Use of stake nets and bag nets close to the mouths of the Dee and Don, so that the fish can hardly get to those rivers, *Paul* 3526, 3536, 3556-3559, 3563-3568—Improper use of feath nets in the Don; several dykes also in the river, *ib.* 3526-3529—Extent of the estuary of the Dee and Don, *ib.* 3533-3536—Unduly small size of the meshes of nets used in the Don, *ib.* 3599—Injurious matter coming from the mills on the Don; doubt as to the means for preventing this, *ib.* 3602-3607.

Devonshire, Duke of. Use, reluctantly, of bag nets and fly nets, in the coast fishings of the Duke of Devonshire, *Foley* 3929-3931, 3939, 3940. See also, *Lismore Fishery.*

Distribution of Salmon. Equal distribution of fish throughout the water, on account of their entering the rivers at different times; witness looks upon this as one of the wonderful arrangements of nature, *Fennell* 2555.

District Boards. Recommendation by the Committee that the salmon fishings be divided into districts by the proposed central Board, *Rep. p.* xi—Also that a local Board of Conservators for such district be elected by the proprietors, with power of assessment for payment of expenses, of appointing water-bailiffs, and making bye-laws; the proceedings of the district Boards to be subject to control by the central Board, *ib.*

Don, The. See *Dee and Don Rivers.*

Doon, The. Particulars relative to the Doon fishings, and the effect thereupon of an agreement between witness and the upper heritors, in 1849, relative to the use of nets, &c.; refusal of the latter to discontinue netting when the agreement expired, *Marquess of Ailsa* 1035-1044—Reference to certain reports, in 1855, upon the Doon; non-observance of recommendations therein, relative to the dam-dykes, &c., *ib.* 1045-1048, 1092—Proper slips should be enforced in all dam-dykes, and sluices and mill-heads should be so managed that the fish cannot get into them; importance of this in the Doon, *ib.* 1049-1051, 1069, 1072, 1090, 1091—It is of no use to remove the stake-nets or cruives, so long as the fish are allowed to be caught at the dam-dykes, *ib.* 1050, 1069, 1072—Nature of the obstacles to the ascent of the fish to the spawning grounds in Doon river, and to Loch Doon, *ib.* 1054-1068—Good reputation of the Doon as a fishing river, *ib.* 1070, 1071, 1089.

Circumstance of the stake nets at the mouth of the Doon having been interdicted by the Court of Session many years ago, but having been replaced, and no opposition made, through the fear of law expenses, *Cathcart* 1475-1477, 1504-1515—Particulars as to the rain-fall, and relative state of the dam-dykes in the Doon, showing the necessity of some steps being taken in the matter, *ib.* 1479—Explanation relative to an agreement made in 1849 between the proprietors on the Doon, in regard to the mode of fishing the river, *ib.* 1569-1575—Great falling off in the rents of the Doon; the falling off in the fishings is the sole cause of this, *ib.* 1572, 1576-1583.

Copy of Report, in 1855, by Mr. James Leslie and Mr. John Shaw, to the associated heritors of the Doon, upon the salmon fishings and mill power of that river, *App. p.* 397-409.

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Dougall,

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Dougall, Captain Maitland, R. N. (Analysis of his Evidence).—Proprietor of salmon fishings on the coast outside the Tay, and in the estuary on the south shore of the Tay, 1920, 1921—Uses stake and bag nets on the coast and stell nets or cleek nets in the estuary, 1922—Considers that stake and bag nets are far less detrimental to the breed of salmon than are the sweep nets used in the rivers; grounds for this conclusion, 1923 *et seq.*—Difference between the sweep net and the net and coble or stell net, 1931, 1932—Stake nets fish for about sixteen hours out of every twenty-four, 1935—Bag nets are sometimes so placed as to fish at all times of the tide; short periods in the day for which witness's bag nets are in operation, 1936–1938. 1941.

Number of men required to work witness's bag and stake nets, 1939, 1940—Stationary nets do not alarm the fish, whilst nets in motion alarm them very much, 1942—Tendency of the salmon, when ascending the river, to keep in deep water, and not to hug the coast; grounds for this statement, 1943. 1966. 1973, 1974. 2070–2078. 2081–2083—Fluctuation, from natural causes, in the produce of the fisheries, 1944. 1946—Increased rentals of the fishings in the Tay; table delivered in hereon, 1944–1949—Immaterial alteration in the price of salmon since 1850; 1948—Special regulations adopted by an association of the Tay proprietors, as to close time, &c.; satisfactory operation thereof, 1948–1961.

Limits of the estuary of the Tay within which stake and bag nets are prohibited, 1962, 1963—Statement showing that, in certain rivers, there has been an increased take of fish after the introduction of stake and bag nets on the coast, 1965—Expediency of a permission to use bag and stake nets in estuaries, 1966–1974—The chief thing is to take care of the breeding fish, 1966. 1971, 1972—Importance of an earlier close time; it might begin generally on the 26th August, 1966. 2025. 2100.

Evil in the channels of the rivers being blocked up by sweep nets and other means, 1969. 1975—As there are nearly 20,000 eggs in each spawning salmon, a few fish would amply stock the rivers, 1971, 1972—Statement as to the coast fisheries of the Tay producing only 300 *l.* a year or so, whilst the river fisheries produce 12,000 *l.* a year, 1973. 1975. 1976. 1990—Objectionable modes of fishing in the Tay, which, rather than the stake and bag nets, are injurious to the upper fishings, 1975, 1976. 2006. 2022, 2023—Injurious effects of the refuse which flows into the rivers from mills, dye-works, &c., 1977—Possibility of observing the Saturday slap, in bag and stake nets, 1978–1980. 1984–1986.

Doubt as to many fish being damaged and rendered useless in stake or bag nets during storms, 1981, 1982. 2039–2040—Large destruction of salmon in the sea by seals, porpoises, and grampuses, 1983. 1987. 2079, 2080—Suggested regulations as regards sweep nets, so as to admit of a mid passage for the fish, 1988. 1993–2008.—There should be longer slaps in the cruives, 1988—Extent of coast which witness considers to belong to the Tay fishings, 1991, 1992.

Objection to the sweep nets in the Tay, &c., as being a scourging mode of fishing the rivers, and as being injurious to the sea fishings, 2003–2006. 2022–2028—Better quality of the fish taken in the sea than of those taken in the rivers or near the mouths of the rivers, 2009–2019—Trifling value of some of the Tay fishings inside the estuary, 2019–2022—Large increase since 1852 in the quantity of salmon taken in the Tay, 2024, 2025—Satisfactory system of artificial propagation carried out in the Tay, 2028–2034—Fish bred in the Tay and marked are sometimes caught in adjoining rivers, 2030–2038.

A considerable number of persons would be thrown out of employment if stake and bag nets were prohibited, 2049—Impracticability of using the net and coble on the coast; it has lately been tried without success, 2050–2052. 2061–2069—The Tay fishings have been benefited rather than injured by the improvements made in the navigation of the river; reference hereon to the compensation awarded to Sir John Richardson, 2053–2055—Witness has an old charter from the Crown for his fishings; the date is older than the time of introduction of stake nets, that is, in 1797; doubt as to the mode of fishing previously, 2056–2063.

Belief of many persons that salmon spawn in the sea; witness has occasionally caught fish in the sea quite ripe for spawning, but he is of opinion that the spawning takes place in the rivers, 2084–2097—Suggestion that there be a regulation as to the size of the mesh used in all nets, 2098, 2099—Inexpediency of the fishing season commencing before the 1st February, 2101—The spawning beds are injured by the sweep nets, more in the Esk and other rivers than in the Tay, 2102, 2103—Under certain conditions there should be an extension of rod fishing after the close of the season for nets, 2104.

Dry Seasons. Effect of a scanty supply of water in rivers to prevent the ascent of salmon, *Ifennell* 2609, 2610.

Dunbar, William. (Analysis of his Evidence).—Lessee of the fisheries in Thurso River and Bay, 917, 918—Improvement in the fishing in the river since witness first took a lease of it from Sir George Sinclair; this is attributable to the non-introduction of stake and

Dunbar, William. (Analysis of his Evidence)—*continued.*

and bag nets in the sea until about the end of May, after which time, but few fish go up the river, 919-937—Use occasionally of weir shot nets in the bay of Thurso, 932-936—Expediency of the proprietors generally on the coast not using stake and bag nets; fixed engines in the sea should in fact be prohibited, 937-941. 955, 956. 983-986.

Doubt whether on the coast near Thurso many fish are taken besides those which make for the local rivers, 942-945—Destruction of the fishings in the Inver and Kirkaig in consequence of the bag nets all round the coast, 946, 947. 953, 954—Numerous fixtures on the coast of Caithness and of Aberdeen, and tendency thereof to ruin the fisheries, 948-952—Great falling off at one time in the Spey fishings through the extensive use of stake and bag nets, 950. 973-977—Cruives as well as fixed engines in the sea should be abolished, 957—Removal by witness of the cruives from the rivers Langwell and Berrydale, 957-959. 1031.

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Doubt as to its being inconsistent with the law to prohibit stake and bag nets, 983-986—Unfair way in which cruives are generally worked, 987-990—Expediency of a heavy penalty properly enforced, where the cruives are not fairly worked, 991-993—The river proprietors should pay for protection against poaching, but the injury done by fixed nets on the coast should first be removed, 993, 994—Considerable number of fish killed by witness with the rod, 995—Absence of loss in many places by substituting the net and coble for fixed engines, 996.

Spawning time in the Thurso adverted to, 997, 998—Effect of the bag nets in preventing salmon from going up the Nairn, 1000, 1001—There should be a public prosecutor as a means of punishing poachers, 1002—Doubt as to the expediency of a Board or Commission, *ib.*—There should be a heavy penalty for killing kelts, if the fishing commence on the 10th December; those taken out should be put in again, 1003-1010—Doubt as to sheep washing being destructive to salmon, 1011, 1012.

There should be an opening in all mill dams for the smoults or young fish to get down, and the salmon to pass up, 1013-1017—Salmon do not often congregate in the tail races of mills, 1018, 1019—Practicability of enforcing a Saturday slap in stake and bag nets, 1020-1027—Approval rather of a uniform close time than of a different time for different rivers, 1028-1030—Circumstance of the fishings in the rivers in Norway being injured through the introduction of fixed nets round the points, 1031—Advantage in the removal of cruives from any river on which there are conflicting interests, 1031, 1032.

Dunn, John. (Analysis of his Evidence.)—Lessee of salmon fishings on the Tay; fishes only with the net and coble, 3196-3199—Statement showing that the Tay fishings held by witness, and those held by several other lessees or proprietors, have largely increased of late years, whilst the fishings in the upper part of the river have greatly fallen off, 3200-3205. 3212-3214. 3249. 3263-3265. 3271-3276—Advantage in the close time in the Tay commencing on the 26th August; local Act for this purpose, 3206-3210. 3220. 3255-3257. 3280—The close time generally should commence earlier, 3207. 3290—Practice as to the use of sweep nets, and of what is termed Bermoney boat-fishing in the lower portions of the Tay; their effect in destroying the upper fishings, 3213-3219. 3226-3232. 3260-3262.

Good effect of the breeding ponds in the Tay, 3220, 3221—Improvement in the fishings through the navigation having been improved, 3222, 3223. 3267, 3268—Sizes of the nets used in the Tay; suggestion hereon in regard to the minimum size, 3224, 3225. 3233-3238. 3290. 3291. 3293—Any foul fish taken in witness's nets are put into the water again, 3239-3242—Prices obtained by witness; more steady but higher prices of late years, 3245-3248.

Limits of the estuary of the Tay within which stake and bag nets are prohibited, 3249-3254. 3258, 3259—Slight use of the Saturday slap when the water is low, 3266—Late hour on Saturday up to which witness fishes, 3269, 3270—The upper proprietors might have some concession in the time of commencing to fish, 3271—The salmon in the Tay have, on the whole, increased, 3273-3275—Effectual steps for preventing poaching in the river, 3277-3280—Failure of an attempt by witness to use sweep nets at the Broughty Castle fishings near Dundee; use, legally, of a still net, 3282-3285. 3292—Habits of the salmon to keep in deep water in the Tay estuary before ascending the river, 3286-3289.

Dutch

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Dutch Salmon. Quantity of Dutch salmon received in London in each year since 1834, *Redpath* 1097—Respects in which the Scotch salmon are preferable to the Dutch; the latter, however, often command a higher price on account of their larger size, *ib.* 1104. 1106.

Particulars relative to the quality, quantity, and price of the Dutch salmon consignment to witness; denial that the Scotch salmon are better, *Newby* 3685-3692. 3697-3705—The Dutch salmon come over in 30 or 40 hours, and in excellent condition, *ib.* 3706-3708.

E.

Eel Fisheries (Ireland). Particulars relative to the eel fisheries in Ireland, as controlled by the Commissioners; immense supplies obtained, *Ffennell* 2673-2678.

Employment. Number of men required to work witness's bag and stake nets, *Dougall* 1939, 1940—A considerable number of persons would be thrown out of employment if stake and bag nets were prohibited, *ib.* 2049—Number of men required to look after a bag net or stake net, *Bissett* 2277, 2278—Nature of the duties performed by the foreman and the men under him, *ib.* 2309—Harder work of the men employed in the sea fishings than in the river fishings, *ib.* 2314-2316—Modes of employment during the close time of the men engaged in fishing, *ib.* 2317-2320—Increased employment given through the use of stake and bag nets, *Johnston* 3467, 3468.

England. Absence of analogy in the English law relative to the Crown rights to salmon fishings in Scotland, *Watson* 181, 182—Regulations in two English Acts for the protection of salmon in the rivers, *ib.* 182—Varying provisions in English local Acts as to close time, *ib.* 183-186.

Esk, The. Destruction of the fish in the Esk through the pollution of the stream, *Lord Advocate* 53; *Johnston* 3453-3455—Increase of late years in the produce of witness's sea fishings, whilst the fishings in the Esk and the Bay of Montrose have diminished, *Johnston* 3385-3390. 3399-3402—Less quantity of water in the Esk than in former seasons, *ib.* 3395-3398—Nature of the leases under which witness holds his two principal fishings; rents paid, *ib.* 3403-3406. 3415.

Estuaries or Mouths of Rivers. Importance of a definition of the question where estuary ends and where sea begins; several actions at law which have turned upon this point; character of the decisions given, *Lord Advocate* 58, 59—Different elements involved in the question as to the limits of the entrances or mouths of rivers; how the question might be settled, *ib.* 59. 83—Great difficulty in defining what are the limits of the river; memorandum on this question by Mr. Farren, of the Board of Trade, *Watson* 166-171—Suggested legal definition of the mouth of a river, *Grant* 1776, 1777—Illegality of fishing by means of fixed engines in estuaries, *Brown* 1842, 1843. 1907-1908; *Paul* 3622; *Lord Advocate* 4105-4107. 4147, 4148—The definition of an estuary is very difficult, *Brown* 1844-1846; *Paul* 3533.

Expediency of a permission to use stake and bag nets in estuaries, *Dougall* 1966-1974—Definition of the mouths of the rivers by the Commissioners in Ireland, *Ffennell* 2356-2359—Advantage if the practice in Ireland in regard to the definition of estuaries were adopted in Scotland, *ib.* 2705-2708—There should be a simple mode for enforcing the abolition of stake and bag nets in rivers and estuaries, *Paul* 3530, 3531.

The definition of an estuary is a matter of fact to be determined by a jury according to the special circumstances of each case, *Lord Advocate* 4105. 4108—The estuaries of the rivers should in the first instance be determined by a commission, *ib.* 4136—Particulars of the definition by the Commissioners of the mouths of the several rivers in Ireland, *App. p.* 436, 437.

Varying circumstances to be considered in different cases as to the limits of estuaries of rivers, so that the decision of a jury in one case would be but little guide towards a sound conclusion in another, *Rep. p.* v.

Recommendation by the Committee that stake and bag nets, and all other fixed engines other than cruives already existing, shall be declared illegal in rivers and the estuaries of rivers, and that their use shall be prohibited within such distance of the mouth of every river and estuary as the central Board may deem proper, *Rep. p.* xi—Recommendation of the Committee that the mouth of every river, and estuary of river, not already defined by the decision of a court of law or by an Act of Parliament, shall be defined by the proposed central Board, *ib.*

See also *Ness and Beauly Rivers.*

F.

Feath Nets. Suggested abolition of feath nets as used in the Don, *Adam* 665, 666.

Ffennell, William Joshua. (Analysis of his Evidence.)—Inspecting Commissioner of Fisheries in Ireland; has from his boyhood taken an active interest in the question of the salmon fisheries, 2336-2340—Previously to the Act of 1842, there were twenty-six Acts in existence as regards Ireland, and the fisheries were in great confusion; absurd provisions in some of these Acts, 2342, 2343, 2348, 2349—There have been five Acts since the Act of 1842, and a consolidation and amendment of these six Acts is now provided for by a Bill about to be brought forward, 2342.

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Restrictions under which stake nets and bag nets were legalised in Ireland by the Act of 1842; 2354-2361—Provision by which stake nets are permitted, 2360—Bag nets may be extended any distance into the sea, 2362, 2363—Prohibition upon fixed nets, including stell nets, being placed within a mile seawards or inwards, 2364-2367—Requirement of a free passage being left in stake and bag nets from Saturday evening to Monday morning, 2368, 2369—Satisfactory enforcement of the foregoing requirement; advantage of the aid of the coast-guard and constabulary in the matter, 2370-2376.

Evidence explanatory of the system in regard to close time in the Irish rivers; different close times adopted by the Commissioners for different rivers, 2377-2385; and *App. p.* 438, 439—Practice as to the appointment and payment of water-bailiffs, and as to the appointment of district conservators; amendment desirable hereon, 2386-2396—Required removal during close time of all bag and stake nets, and of draught nets, &c., 2397—Provisions in regard to a “Queen’s gap” being made in the cruive weirs; unsatisfactory state of the law on this point; recommendation that a gap for the free passage of the salmon be enforced in every cruive weir in the country, 2398-2408, 2534.

Particulars as to the course pursued in regard to the erection of “ladders” over mill-dams or weirs, or in places where there are natural obstacles to the ascent of the fish; how the cost is defrayed; great success of this plan in facilitating the passage of the fish, 2409-2422—Power of the Commissioners to remove natural obstacles in rivers, 2418-2420, 2423, 2424—Sufficiency of the space of two inches between the bars of the cruive weirs for the passage of the salmon fry, 2425-2428—Reduction of the size of the mesh of the net to one inch and three quarters, 2429, 2430.

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Advantage if there were a power for preventing salmon getting into mill leads and sluices, 2456-2458—Slight injury, if any, done to the spawning beds by nets being drawn over them, 2459-2465—Recommendation that both in Scotland and Ireland nets for the capture of salmon in fresh water should, save in exceptional cases, be prohibited at all times, 2465-2474, 2481—Extensive discretionary powers of the Commissioners in Ireland, as shown by their bye-laws; expediency thereof, 2475-2478, 2506, 2507, 2511-2513.

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In Scotland, as well as in Ireland, over-fishing by means of fixed engines has been very injurious, and it would have been exceedingly to the benefit of the fisheries if stake and bag nets had never been allowed, 2494-2501—Effect of stake weirs and bag nets to cause a large destruction of salmon by seals, &c., 2498—Larger and regular supply of salmon if stake and bag nets were done away with; instances of this in Ireland, 2501-

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2505—Less necessity for a Fishery Board in Scotland than in Ireland, 2506, 2507—Hardship in its being necessary for parties in Scotland to go to Parliament merely to alter the close season, 2507.

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Advantage if the use of gaffs were entirely prohibited, 2550. 2724-2726—Opinion that salmon may live to a great age, and that their size increases with their age; the old fish still continue to breed, 2551-2554—Opinion, that the impulse to seek the fresh water is caused by the germ getting to a certain state, 2571—Witness does not believe that it is the desire to get rid of the sea lice which impels the salmon to seek the rivers, 2574, 2575—Fallacy of the notion that salmon spawn in the sea, 2576.

Shallow beds of coarse gravel are those in which salmon best like to spawn; they go up very small streams in search of such beds, 2577—Frequent conflicts between salmon for spawning beds; instance of this, *ib.*—Importance of extending the spawning beds; instances, in Ireland, of the great success of new and artificial breeding grounds, 2578-2590—Further statement that the beds in Ireland are not much injured by nets being dragged over them, 2591-2594.

Great destruction of fry at one time in Ireland; measures taken to prevent this, 2595-2601—Stringent provisions should be adopted for preventing the destruction of fry in the Scotch rivers, 2600—Suggestion for preventing the destruction of the fry in the mill-dams, without injuring the mills in any way, 2602, 2603—Several causes through which there is a great waste or destruction of the ova and the fry; so that although there are many thousands of ova in one fish, a few fish will not suffice to stock a river, 2604, 2605, 2611.

Opinion that it is not an invariable rule that salmon return to the river in which they are bred, 2606. 2610—Difference in shape between the fish of different rivers, 2607, 2608—Effect of a scant supply of water in rivers to prevent the ascent of salmon, 2609, 2610—Importance of an early close time in dry summers; in fact, unless there is an earlier closing in Scotland as well as in Ireland, the fisheries must deteriorate, 2609—Advantage which has arisen in Ireland from a suggestion by witness for preventing the spawning beds in mountain rivers from being left dry or uncovered, 2611—Doubt as to the spawn being destroyed by frost, 2612, 2613.

Further particulars relative to the ladders used in Ireland for facilitating the ascent of the salmon; great advantage if they were adopted in Scotland, 2614-2624—Although the fishings in Scotland are a matter of private right, witness considers that it would be perfectly legitimate and very expedient to employ the coast guard and constabulary or police in the observance of the weekly close time, the protection of the spawning beds, &c., 2625-2635. 2687. 2717-2720—The maintenance in prison of a poacher in Ireland is at the expense of the county; expediency of an alteration of the Scotch law hereon, 2636-2640.

Further evidence relative to the system of prosecution of persons offending against the law in Ireland; advantage of the facilities afforded for obtaining evidence, 2641-2647—Part of the duty of the police in Ireland to assist the water bailiffs in protecting the rivers, although the funds derived from the rivers are not in any way applied to the expenses of the police, 2648-2652—Stringent penalties in Ireland in order to prevent fish being taken in the sluices, &c. of mills, 2650. 2653.

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exercised by the Commissioners over the fish generally in the rivers and lakes; national importance of these fisheries, and great advantage in being placed under proper regulations, 2658-2671.

The circumstances of different fishings vary so much, that a Board is essential in Scotland as well as in Ireland, in order to make special regulations, 2664, 2665—Expediency of the Scotch lake fishings being placed under proper regulations, 2672, 2673—Particulars relative to the eel fisheries in Ireland, as controlled by the Commissioners; immense supplies obtained, 2673-2678—The use of otters should be altogether prohibited, 2679—Cross lines should be prohibited upon rivers but not upon lakes, *ib.* The boundaries between lakes and rivers might easily be defined, 2680-2682.

Summary of the measures recommended by witness for the preservation and increase of the breed of salmon in Scotland, 2683 *et seq.*—Advantage in there being a tribunal by which the close time might be altered as circumstances required, 2688. 2704—All salmon nets should have meshes of not less than one inch and three quarters, 2689—Fishing by weir shot nets should be strictly regulated; means for remedying abuses with these nets, 2690-2697—Importance of an extension, under certain conditions, of the season for rod fishing, 2698. 2722, 2723—Objection to the sea fishing being allowed to commence a month before the river fishing, as in Ireland, 2699—Destruction of kelts in Ireland adverted to; inoperativeness of the penalty on the subject, 2699-2703. 2724-2727.

Advantage if the practice in Ireland in regard to the definition of estuaries, &c. were adopted in Scotland, 2705-2708—Particulars relative to the bull trout and the white trout in the Irish rivers; doubt whether the latter are injurious to the breed of salmon, 2728-2732—The difference between the par and the smolt is merely in point of age, 2733, 2734—Trout should be protected in Scotland as well as in Ireland, 2735—Opinion that the brown trout are not very destructive to the salmon ova in the spawning beds, 2736—Great difficulty in covering the ova, so as to prevent its being carried away by the stream, 2737.

Fiddick, The. Extent of poaching carried on in the Fiddick and other tributaries of the Spey, *Grant* 1636-1643.

Findhorn, The. Falling off in the Findhorn fishings, *Hogarth* 565, 566—Effect of heavy "freshes," as in the Findhorn, in preventing the fish from entering the river, *Bissett* 2185—Particulars relative to the fishings in the Findhorn, and on the coast; increase in the produce of the latter, whilst from several causes there has been a falling off in the former, *ib.* 2189-2208. 2258-2266—This is a very good year for the Findhorn, *ib.* 2191. 2259—Effect of the sweep nets to intercept a great quantity of fish, on their way up the river, *ib.* 2195. 2197. 2261-2266. 2333-2335—An amply supply of fish for stocking the river escape the nets on the coast, *ib.* 2206—Practice as to the time of leaving off fishing in the Findhorn, *ib.* 2329-2332.

Fishery Board. Suggestion whether it might not be desirable that the Fishery Board in Edinburgh should have jurisdiction and powers similar to those possessed by the Irish Fishery Board, *Lord Advocate* 29-32—The jurisdiction of the Fishery Board extends to the north coast of England, and the Isle of Man, *ib.* 37, 38, 4102—approval of some such Board in Scotland as the Fishery Board in Ireland for regulating the salmon fishings generally, *Howard* 117, 118—Constitution of the Herring Fishery Board in Scotland; they are not paid, as are the Commissioners in Ireland, *Watson* 177—They have no jurisdiction in the matter of salmon fishing, *ib.* 178.

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Approval of the establishment of a Board, which might regulate the close time in rivers, and make other regulations, *Brown* 1910-1912—The circumstances of different fishings vary so much that a Board is essential in Scotland as well as in Ireland to make special regulations, *Ffennell* 2664, 2665—Advantage if the supervision of the fisheries were entrusted to the Scotch Fishery Board, *Paill* 3608-6313—Regulations under which the Scotch Fishery Board might with considerable advantage exercise jurisdiction and supervision over the salmon fisheries, *Lord Advocate* 4127. 4136.

Extensive discretionary powers of the Commissioners in Ireland, as shown by their bye-laws; expediency thereof, *Fennell* 2475-2478. 2506, 2507. 2511-2513—Less necessity for a Fishery Board in Scotland than in Ireland, *ib.* 2506, 2507—Constitution of the Fishery Board in Ireland; its connexion with the Board of Public Works, *ib.* 2508. 2515-2517—Mode and rate of payment of the two Inspecting Commissioners of Fisheries in Ireland, *ib.* 2509, 2510—Outline of the duties devolving upon the Inspecting Commissioners, *ib.* 2511-2514—Control of the Commissioners over sea and river trout, eels, and all the fresh water fisheries, *ib.* 2655-2671.

Recommendation by the Committee that a central Board or commission be appointed to regulate the salmon fishings in Scotland, *Rep. p. xi.*

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Fixed Engines. Any fixed machinery in the rivers that prevents the passage of the salmon is illegal, *Lord Advocate* 8—It will be for the Committee to decide whether fixed engines should be used at all in the rivers, *ib.* 11. 59. 70-73—Consideration of the right respectively to erect new fixed engines or cruives, and fixed engines such as bag nets in the sea; permission from the Crown necessary in the former case, *Watson* 159-165—The only effectual remedy for improving the fisheries lies in the abolition of all fixed engines, *Jopp* 198, 199. 214-217; *Davidson* 359-361. 377. 391. 413, 414—The river owners would be amply compensated if bag and stake nets and cruives were all abolished, *Jopp* 199. 234-236; *Davidson* 377; *Hogarth* 450; *Russell* 675—The public as well as the river proprietors would be benefited by the removal of fixed engines, *Davidson* 413.

Evidence generally in favour of the abolition of stake and bag nets, and also of cruives; that is, of all fixed engines, *Adam* 610. 616. 647-657; *Young* 812. 863. 878. 893; *Dunbar* 957; *Cathcart* 1547, 1548—Larger supply of salmon after a time if all fixed engines were abolished, *Adam* 649-651—Fixed machinery might be abolished in rivers and estuaries, but not on the sea coast, *Brown* 1892-1895. 1909—Witness would not allow fixed engines anywhere but on the open coast, *Ffennell* 2683—Existence of old grants for the erection of cruives in rivers, but not of fixed engines in the sea; argument therefrom as to the propriety of interfering with the latter, but not with the former, *Tytler* 3344-3346. 3367-3372.

Summary by the Committee of the evidence adduced in favour of the abolition of all fixed engines, *Rep. p.* vii-ix—The Committee are of opinion that all cruives and fixed engines, both in the rivers and the sea, should be abolished; at all events, no new fixed engines should be erected, *ib.* xi—Sundry regulations recommended, failing the adoption of the foregoing suggestion, *ib.* xi, xii.

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Floods. The spawning beds in the Spey, &c., have never been so good since the great flood of 1829, *Grant* 1656—Effect of floods in rivers to put the fish off the coast altogether, *Hector* 2865-2868; *Gray* 3070.

Foley, Nelson T. (Analysis of his Evidence.)—Is joint tenant with Mr. Cliff of the Duke of Devonshire's fishings at Lismore; has been engaged in these fishings for many years, 3918, 3919—Falling off or fluctuation in the Lismore fishings since 1842; for nine or ten bad years there have been only three good ones, 3923, 3924. 4028-4034—System of fishing by boxes; that is, with a weir and a box at each end, 3925—Exemption of the weir from a Queen's gap, 3926, 3927—Observance of the Sunday close time, and also of the annual close time, 3927*-3929—Use, reluctantly, of bag nets and fly nets in the coast fishings of the Duke of Devonshire, 3929-3931. 3939, 3940.

System of stake net weirs adopted in fishing the river below Lismore; evasion of the law thereby, 3932-3937—Considerable expense of bag net fishing, 3938—Instance of the effect of bag nets in scaring away the fish, 3940-3945. 3956-3961—Witness feels certain that salmon spawn only in rivers; they require aerated water, 3946-3949—Conflicting interests on the Board of Conservators for the Lismore district; insufficiency of the licenses fund at their disposal, 3950-3954. 3969-3971—Objection to a Queen's share in the weir at Lismore; it would render the fishery valueless, 3954, 3955. 3962-3968.

Inexpediency of the late extension of the fishing season in the Blackwater at Lismore, &c., 3972—Trifling capture of breeding fish by anglers late in the season, 3973, 3974—If the upper proprietors had more interest in the river they would not take any more trouble to preserve it, 3975-3977—The fisheries should be assessed more equitably; and the law should be enforced, 3978-3982. 3993—The observance of the weekly close time allows an adequate supply of fish in the upper waters, 3983, 3984—Non-observance in many instances of the Saturday close time; inadequacy hereon of the police and coast guard, 3984, 3985. 4018-4027.

Considerable outlay by witness, and his practice for the supervision of the river, 3985, 3986—Rental of 700 *l.* paid for witness's fishery; deduction paid out of this to the Church, 3987-3990—Considerable value of the fish taken between Youghal and Lismore, 3991, 3992—The assessment is not more than 300 *l.* a year, 3993—Advantage to the river fishings if there were no bag nets in the sea, 3994-3997—Injurious operation of the timber-tide weir, 3997—Advantage of the ladder put up at Glandallen weir, 3998-4002.

Large destruction of salmon at mill-dams by the miller's men; difficulty in preventing this, 4001-4010—Approval generally of the present Fishery Acts for Ireland; some amendments are required, 4011-4013—Circumstance of the mouth of the Blackwater not having been defined; its breadth at Youghal Bridge, 4014-4017—Occasional want of ice for preserving the salmon taken at witness's fishery; mode in which he provides ice, 4032. 4035-4037—The fish is sent chiefly to Liverpool, and competes successfully with the Scotch salmon, 4038-4041.

Forth, The. Falling off since 1832 in the salmon fishing of the Forth, of which witness is lessee; some years are still very good, and some very bad, *Anderson* 1261-1264—Witness has a cruive about two miles above Stirling, and fishes with a net and coble, *ib.* 1265, 1267—A good many fish are taken by means of the cruive, but if it were done away with, and also the stake and bag nets in the sea, the fishing would be much improved, *ib.* 1268-1280—Improvement if the close time in the Forth commenced not later than the end of August and terminated by the 1st January; larger fish would be thus secured, *ib.* 1280-1283, 1290-1295—Great injury to the fish by noxious liquids being allowed to flow into the river from gas works, bleaching grounds, and paper mills; necessity of some means for enforcing the remedy in such cases, *ib.* 1305-1319, 1321.—See also *Yairs*.

Foul Fish. Expediency of stricter measures for preventing the taking of foul fish, *Russell* 788-791; *Young* 893, 894; *Ridpath* 1126—There should be a heavy penalty for killing kelts if the fishing commences on the 10th December, as proposed by witness; those taken out should be put in again, *Dunbar* 1003-1010—Recent instance of an import to London of foul fish from Scotland; punishment inflicted, *Ridpath* 1121-1123, 1127—Rare instances of kelts or foul fish being taken in the stake or bag nets, *Brown* 1861-1864, 1918; *Bissett* 2246, 2247; *Hector* 2819, 2827-2829; *Gray* 3075; *Paul* 3576—Destruction of kelts in Ireland adverted to; inoperativeness of the penalty on the subject, *Ffennell* 2699-2703, 2724-2727—Any foul fish taken in witness's nets are put into the water again, *Gray* 2996; *Dunn* 3239-3242; *Johnston* 3425-3427—Large quantity of salmon out of season which are sent to London, *Newby* 3693, 3696.

Suggested penalty to be enforced by summary process for taking or being in possession of foul fish, *Rep.* p. xii.

Foyle Fishings (Ireland). Prejudicial effect of the Irish Fishery Act of 1842 upon the fishings in the Foyle, *Allen* 3775-3778—Voluntary expenditure by the river proprietors on the Foyle for the protection of the fishings, whereas the coast proprietors contribute nothing beyond the license duty; expediency of the latter paying towards the preservation of the fish, *ib.* 3779, 3797, 3886-3894, 3900-3904—Particulars relative to the bag nets, as used in the sea in the line of entrance to the rivers Foyle and Bann; their effect in increasing the sea fishings to the great injury of the river proprietors, *ib.* 3779, 3780, 3791-3797, 3854-3870, 3898, 3899—Obstacle to the use of stake nets in the sea, at the mouth of the Foyle, *ib.* 3780, 3860-3862—Use by witness of stake nets in the Foyle, *ib.* 3780-3784.

Extent of fishing in the Foyle belonging exclusively to the Irish Society, under whom witness is lessee, *Allen* 3784-3789, 3805, 3842-3845—Limits of the mouth of the Foyle as defined by the Fishery Commissioners, *ib.* 3785, 3786—Increase of rent paid by witness's predecessor as lessee, *ib.* 3790—Practicability of fishing parts of the Foyle with the net and coble, if stake nets had not been made legal by the Act of 1842, *ib.* 3792-3804—Lateness of the season in the Foyle; good fish to be had in September, *ib.* 3812-3819.

Use of weirs in the Foyle and Bann; observance of the weekly close time, *Allen* 3820-3824—Existence of some mill-dams in the Foyle; opening in them for the passage of the fish, *ib.* 3825-3830—Operations of the Board of Conservators for the Foyle; importance of raising the license duty, *ib.* 3831-3835—Doubt whether in the aggregate there is any decrease in the fishings of the Foyle and Bann, including the coast fishings, *ib.* 3870, 3871—Facility for fishing with less expense in the Foyle, if bag nets were prohibited, *ib.* 3876-3879—The fishing on the coast does not commence practically until the beginning of May, *ib.* 3913-3916.

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Gaffs. Advantage if the use of gaffs were entirely prohibited, *Ffennell* 2550, 2724-2726.

Gammell v. Office of Woods, &c. Stop to the granting of leases between 1846 and 1848, through the resistance made by Mr. Gammell and others to the rights of the Crown to the sea fishings, *Watson* 129—Questions at issue in the case between the Crown and Gammell, such questions having been settled in favour of the former, *ib.*—Mr. Gammell gave up the point that, as owner of the barony, he was entitled to the sea fishing, so that this question was not argued, and there has been no legal decision upon it, *ib.* 129, 130—Witness produces a plan of the fishings in dispute in the case, *ib.* 187.

Judgment of the House of Lords in the Appeal of Gammell and Others *versus* The Commissioners of Woods, &c., and the Lord Advocate for Scotland; decision in favour of the Crown, *App.* p. 391-396.

Reference by the Committee to the points involved in the case of Gammell *versus* The Crown, and to the way in which such points were decided, *Rep.* p. iv.

Garnock,

Garnock, The. Failure of the fishery in the Garnock, through the salmon being blocked out at the mouth of the river, *Cathcart* 1609, 1610.

See also *Ayrshire Rivers and Coast*.

Germany. Very few salmon imported from the Elbe or other German rivers, *Newby* 3713.

Gow, Andrew. (Analysis of his Evidence.)—Resides at Lossiemouth; was for 45 years a practical salmon fisher, and was tacksman of the Lossie, Banff, and other fishings, 2105–2109. 2137—Considers that stake and bag nets are a great improvement upon previous modes of fishing; they take the fish in better order, 2110, 2111—The Lossie is not a good breeding river; causes of this, 2112, 2113—The fish taken off Lossiemouth are chiefly Findhorn and Spey fish, 2114–2118.

Statement showing that between 1836 and 1842, the Banff fishings improved very much, 2119, 2120—Great improvement between 1843 and 1854 in the Tarbet Ness fishings, where bag nets are used; falling off in the river fishings, 2120–2131—Much finer fish killed in the sea than the rivers, 2127—Situation of witness's bag nets when he fished off the mouth of the Lossie, 2132–2136—Great injury and hardship if the Saturday slap were enforced in stake and bag nets, 2143–2150—Lower price of salmon in Banff, &c., in consequence of the larger quantity killed, 2151–2159—Injurious effect of sweep nets in rivers upon the breed of the fish, 2160—There should be an earlier close time; it might commence about the end of August, 2161–2164.

Grant, James. Analysis of his Evidence.)—Provost of Elgin; was for several years lessee of portion of the Spey fishings, 1619–1621—Decrease in these fishings up to 1859 from over-fishing in the river and on the sea shore; situation of witness's fishings adverted to hereon, 1622–1635—Extent of poaching carried on in the Fiddick and other tributaries of the Spey, 1636–1643—Better quality of salmon before they have been any time in the rivers, 1644–1647. 1702–1708—Less apathy on the part of the upper heritors, if there were more fish in which to take an interest, 1648–1651.

Molestation of the salmon in the Spey by the rafts coming down the river, 1652–1655—The spawning beds have never been so good since the great flood of 1829; 1656—Sufficient fish for breeding purposes now enter the river, but they are intercepted before reaching the spawning beds, 1657. 1755—The close time for nets should be from the 12th August until the 1st February, 1658, 1659—The Saturday slap should be observed in stake and bag nets as well as in cruives; practicability thereof, 1660–1664. 1748–1751—Suggestion with a view to proper benefit being derived from the Saturday slap, 1665–1674. 1778.

Expediency of the fish being molested as little as possible after they enter the rivers, as they only do so for the purpose of spawning, 1674–1676. 1755—Where the net and coble can be used in the sea, as many fish would be taken as at present, if proper arrangements otherwise were arrived at, 1676–1678. 1683–1686—Necessity of other means than the infliction of a penalty for securing the observance of the Saturday slap in cruives, 1679–1682. 1734—Character of the fishing in the Lossie adverted to; it never was a good salmon river, 1687–1690.

Injury to the fishings by the sawdust going into the rivers from saw-mills; this might easily be prevented, 1692–1694—Better means should be provided for preventing deleterious matter from mills going into the rivers, 1697–1701—There is a bag net near the mouth of the Lossie, but witness thinks that the fish caught in it belong rather to the Spey, 1709–1711. 1723–1733. 1738–1745—Opinion as to the proper limits of the estuary of the Ness and Beaully, 1712–1722.

Expediency of proper means for enforcing the Saturday slap in mill-dams, 1735–1737—Advantage in allowing rod fishing for a month after other fishing, 1746. 1759—Doubt whether on account of the fishing on Sunday the proprietors of stake and bag nets would consent to closing a month earlier in the season, 1752–1754—Suggestions with a view to more strict preservation on the part of the upper proprietors, 1755–1764—Greater expense of stake and bag net fishing than of net and coble fishing, 1765, 1766—Greater probability of the salmon escaping the stake nets than the bag nets, as the latter go into deeper water, 1767–1774—Suggested legal definition of the mouth of a river, 1776, 1777—Sundry other amendments suggested for the improvement of the fisheries, 1778.

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Haddocks. Great fluctuation in the take of haddocks as well as of salmon, *Paul* 3572. 3574, 3575.

Hector, John. (Analysis of his Evidence.)—Is tenant of certain fishings on the coast of the county of Kincardine, 2738—Previously to 1827 witness used the net and coble; since that period he has used bag and fly nets, and has taken a much larger quantity of fish, 2739-2745. 2765-2781—Belief that many fish are taken in the sea that would never have gone to the rivers, and that they do not always ascend the rivers for purposes of spawning, 2746-2759—Opinion that salmon sometimes spawn in the sea, and that there are mature sea fish which never ascend the rivers; grounds for this notion, 2754-2763. 2785, 2786. 2800-2802. 2827-2842. 2911-2918.

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Witness attributes the decrease of fish in the rivers chiefly to the drainage from mills, &c., and to the use of artificial manures on the adjoining lands, 2879. 2890-2897. 2902—Too many fish are not and cannot be killed by stake or bag nets; there are still an ample number for stocking the rivers, 2880-2886. 2889. 2903. 2907-2910. 2919-2922—Cruives are to some extent objectionable, but are not destructive in any great measure, 2887, 2888—The Saturday slap could not be observed in stake and bag nets, 2898—Loss of a valuable supply of fish to the community if stake and bag nets were compelled to be removed before the ordinary close time, 2900-2902.

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Hogarth, William. (Analysis of his Evidence.)—Resides at Aberdeen; has a very extensive experience of the salmon fisheries, 416-420—Net and coble fishing, weir shot, is the only mode acknowledged by law for river fishing above the tideway, 421, 422—On the sea coast, bag nets, stake nets, and in some places the net and coble are used, 422—There is no doubt but there has been a large decrease during the last 30 years in the Scotch salmon fishings, 423-426. 467. 512-514—The decrease is attributable to over-fishing, 427, 428.

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Several fishings on the coast or in rivers of which witness is lessee, 459—Witness was for a long time lessee of the Spey fishings, 460. 462, 463—Terms of the leases held by witness, 461—Decreased rents of some river fishings, whilst the rents of sea fishings have increased, 465. 473-475—Increased price of salmon through the supply not being equal to the demand; extent of this increase considered, 465-472—Doubt as to the improvement in the Spey fishing since witness gave it up being owing to the abandonment of the stake and bag nets, 476-487.

Mode of fishing the Sutherland rivers; falling off in the production and probable cause, 488-496—When witness had the Spey fishings, the cruives were worked fairly with a Saturday slap, 497—Opinion as to the fair working of the cruives on the Shin and other rivers, 498-509—Witness sends nearly all his salmon to the London market, 510—Approval of the close time being uniform for all the rivers; obstacles to different

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Howard, The Hon. James Kenneth. (Analysis of his Evidence.)—As one of the Commissioners of Woods and Forests, &c., has had to consider the rights of the Crown to salmon fishings in Scotland, 87-89—Steps taken by witness to establish the title of the Crown to the sea-coast fishings, in consequence of the decision of the House of Lords last Session that, where the coast proprietors had no existing title, the fishings belonged to the Crown, 90—Result of circulars issued by witness to 345 proprietors whose titles required investigation; hitherto only 29 leases for short periods have agreed to be taken from the Crown, 90. 98, 99.

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Huxley, Professor Thomas Henry. (Analysis of his Evidence.)—Has paid considerable attention to the natural history of salmon, 3715, 3716—There is no evidence that salmon breed in the sea, 3717-3719—The young of the salmon are apt to vary to the extent of twelve months in the time which it takes them to attain the state of grilse; conflicting evidence on this point, 3720-3723—Progress of the par or young of the salmon up to the third year, after which their history can hardly be traceable, 3720-3724. 3730, 3731.

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Ireland. In Ireland the right to salmon fishing is regulated by a certain Act of Parliament, the Crown having no prerogative rights in the matter, *Watson* 124. 189—Previously to the Act of 1842 there were twenty-six Acts in existence as regards Ireland, and the fisheries were in great confusion; absurd provisions in some of these Acts, *Ffennell* 2342, 2343. 2348, 2349—There have been five Acts since the Act of 1842, and a consolidation

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tion and Amendment of those six Acts is now provided for by a Bill about to be brought forward, *Ffennell* 2342—Very few “several” fisheries in Ireland, that is fisheries where proprietors have an extensive right; public rights generally prevail, *ib.* 2349–2352.

Increase in the quantity of salmon taken in Ireland, since the fixed engines have been controlled and the rivers protected, *Ffennell* 2482, 2483. 2489. 2490—Control exercised by the Commissioners over the fish generally in rivers and lakes; natural importance of these fisheries, and great advantage in their being placed under proper regulations, *ib.* 2655–2671—The proprietary interest in the Irish fisheries is changing from the rivers to the sea, *Allen* 3886—Approval generally of the present Fishery Acts for Ireland; some amendments are required, *Foley* 4011–4013.

Copy of the instructions for coast guards, &c., and of the several regulations as laid down by Act of Parliament, for the Irish fisheries, *App. p.* 434–431—Abstract of bye-laws, orders, &c., made by the Commissioners, up to 1st January 1859; *ib.* 432, 433.

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Way in which witness's bag nets are placed, one outside the other; depth and distance to which they go, 3431–3438—Witness has a feeling that salmon may spawn in the sea, and states that he has taken, in the sea, at the mouth of the Tweed, several brown salmon, quite ready to spawn, 3439–3452—Destruction of the Esk fishings by the paper mills, &c. on the banks, 3453–3455—The Marshall Meadows fishery, near the Tweed, which witness now holds, was fished by bag nets for many years, 3456–3458.

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Jopp, Alexander. (Analysis of his Evidence.)—Advocate at Aberdeen, 191—Has, since 1828, been clerk to the heritors of the rivers Dee and Don, for the protection of the salmon fisheries of those rivers, 192, 193—Hands in a pamphlet which he wrote with reference to the question of the proprietors of the Dee and Don taking steps for the improvement of the fisheries, 194—Great decline in the fishings of the Dee and Don, in consequence of the use of bag and stake nets in the sea fishings, 195, 196. 246. 261. 262—Statement 456.

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Ladders. Success of the plan of "ladders" as used in Ireland in order to facilitate the ascent of the salmon up the rivers, *Brown* 1849—Particulars as to the course pursued in Ireland in regard to the erection of "ladders" over mill-dams or weirs, or in places where there are natural obstacles to the ascent of the fish; how the cost is defrayed; great success of this plan in facilitating the passage of the fish, *Ffennell* 2409-2432—Further particulars relative to the ladders used in Ireland for facilitating the ascent of the salmon; great advantages if they were adopted in Scotland, *ib.* 2614-2624—Circumstance of the idea of the ladders in Ireland having been taken from a plan of Mr. Smith, of Deanston, in Scotland, *ib.* 2623—Advantage of the ladder put up Glandallen weir on the Blackwater, *Foley* 3998-4002.

Statement showing the great success of the system of ladders as carried out in the Ballisodare river, Ireland, *App. p.* 441-443—Design for a fish passage or ladder over a mill weir, as approved by the Fishery Commissioners, *ib.* 442.

Recommendation by the Committee that the Central Board have power to alter dams, or erect salmon ladders thereon, as also to erect salmon ladders where there are natural obstacles in a river, *Rep. p.* xi.

Lake Fisheries. Expediency of the Scotch lake fishings being placed under proper regulations, *Ffennell* 2672, 2673.

Langwell and Berrydale Rivers. Removal by witness of the cruives from the rivers Langwell and Berrydale, *Dunbar* 957-959. 1031.

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Lismore Fishery (Ireland). Falling off or fluctuation in the Lismore fishings since 1842; for nine or ten bad years there have been only three good ones, *Foley*, 3923, 3924. 4028-4034—System of fishing by boxes, that is with a weir and a box at each end, *ib.* 3925—Exemption of the weir from a Queen's gap, *ib.* 3926, 3927—Observance of the Sunday close time, and also of the annual close time, *ib.* 3927*-3929—Conflicting interests on the Board of Conservators for the Lismore district; insufficiency of the licenses fund at their disposal, *ib.* 3950-3954. 3969-3971.

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London Market. Witness sends his salmon chiefly to London, *Hogarth* 410; *Speedie* 1389; *Gray* 3034-3036.

Lord Advocate of Scotland (The Right Hon. James Moncreiff, M.P.). (Analysis of his Evidence.)—In Scotland the salmon is not, in the proper sense of the word, a royal fish, 1, 2—A salmon fishing is a separate, real, and heritable estate, and vested in the Crown, 2—The question of title depends upon a grant from the Crown, or a prescriptive possession of some mode of fishing, other than rod or spear fishing, for forty years, or from time immemorial, 2-6—Question whether a title to a barony, followed by possession of a salmon fishing, may not be a sufficient title, 6.

With regard to the limitations which have been imposed by statute upon the mode of fishing, the first legislation on the subject dates as far back as Robert the First in 1318; 6—As to the mode of exercising the right of salmon fishing, and the places within which the right may be exercised, the Acts since the time of Robert the First are still the law of Scotland, 7—Difficulty experienced as to the meaning of portion of the Act of Robert the First; views of witness on the question, 7, 8—Important provisions in a statute of Queen Mary in 1563; 8.

Witness delivers in a copy of all the Acts relating to salmon fishings in Scotland, from that of Robert the First in 1318, to that of Queen Anne in 1705; *Ev. p.* 5-11.

Present state of the law in regard to fresh water, that cruives &c., are lawful, if erected and used according to the special provisions of the statutes, 8-10. 86—Any fixed machinery on the rivers that prevents the passage of the salmon is illegal, 8—Witness hands in a drawing of a cruive, *ib.*—Cruives are the commonest mode of fishing by fixed engines on rivers, *ib.*—Suggestion that cruives be prohibited altogether; difficulty hereon, 11. 59. 70-73.

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a grilse; immense increase of size during this period, 3664-3667—Peculiar development of the milt in the parr or fry of the salmon, 3667-3669—Destruction of smolts and of salmon ova by the bull trout; probability of the salmon itself being also destructive, 3670-3673.

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Rents. Decreased rents of river fishings whilst the rents of sea fishings have increased, *Hogarth* 465. 473-475. See also *Crown, The.*

Return of Salmon to their own Rivers. Salmon usually return to the rivers in which bred, *Young* 850-852; *Quekett* 3639, 3640; *Huxley* 3769—Distinguishable difference between the fish of different rivers, *Rutherford* 1421-1425; *Ffennell* 2607, 2608; *Huxley* 3770, 3771—Fish bred in the Tay and marked are sometimes caught in other rivers, *Dougall* 2030-2038—Difficulty in distinguishing the fish of one river from those of another, *Bissett* 2218-2224—Opinion that it is not an invariable rule that salmon return to the river in which they are bred, *Ffennell* 2606, 2610.

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Richardson, Sir John Steward, Bart. Circumstance of compensation to the amount of 7,000*l.* having been awarded to Sir J. S. Richardson for the damage supposed to have been done to his fishings on the Tay by the improvements in the navigation, whereas his fishings have really improved since these alterations, *Dougall* 2053.

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Richmond, Duke of. (Analysis of his Evidence.)—Delivers in a return of the number of salmon grilse and trouts caught in the Spey in each of the years 1851-59, that is, since he has had the fishing in his own hands, 4152.

Ridpath George. (Analysis of his Evidence.)—Member of the firm of Forbes, Stuart & Co., who are the largest wholesale dealers in salmon in the London market, 1093-1095—Practice of the firm for many years past to keep an account of the quantity of salmon imported into the London market, 1096—Statement delivered in of the number of boxes of salmon received in London, of 112*lbs.* each, for each of the years 1854-59, 1097—Witness cannot account for the great fluctuation in the annual import, 1099—Rise of price within the last ten years; causes other than the supply which may account for this, 1100-1102.

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River Fisheries. The river fishings have not been disputed, but if not held by grant from the Crown or by prescriptive right, might be claimed by the Crown, *Howard* 93, 111-114—Evidence as to the production of the river fisheries having greatly fallen off since the use of bag and stake nets in the sea, *Davidson* 278-290; *Hogarth* 434-438, 511, 534-536; *Adam* 575-578, 605, 606; *Russel* 673; *Young* 811—Reference to a return prepared by witness relative to the sea and river fishing, with which he is connected, and showing that whilst the former leave a large profit, the latter do not pay, *Adam* 601-604—Suggestions

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—Suggestions with a view to diminishing the expense of river fishings, that is, by an agreement among the proprietors about regulating the nets, &c., and apportioning the proceeds, *Russel* 792-795—The river fishings have fallen off, chiefly in the upper waters, from various causes, *Brown* 1785, 1786. 1830, 1831.

Evil in the channels of the rivers being blocked up by sweep nets and other means, *Dougall* 1923 *et seq.* 1969. 1975—Recommendation that both in Scotland and Ireland, nets for the capture of salmon in fresh water should, save in exceptional cases, be prohibited at all times; the lowest chartered fishings should be excepted, *Ffennell* 2465-2474. 2481. 2658. 2709-2717. 2721.

See also *Assessment for Protection of Fisheries.* *Ayrshire Rivers and Coast.* *Close Time.* *Cruives.* *Dee and Don Rivers.* *Doon, The.* *Estuaries or Mouths of Rivers.* *Findhorn, The.* *Fixed Engines.* *Forth, The.* *Nairn, The.* *Ness and Beaully, The.* *Net and Coble.* *Pollution of Rivers.* *Quality of Salmon.* *Spawning.* *Spey, The.* *Stake and Bag Nets.* *Supply of Salmon.* *Sutherlandshire.* *Sweep Nets.* *Tay, The.* *Upper Heritors on Rivers.* *Weekly Close Time.*

Rod-fishing. It has been suggested that legalising rod-fishing throughout the year would be some protection to the fish during the spawning season, *Watson* 177—Approval of an extension of rod-fishing, under certain conditions, beyond the period allowed for net fishing; interest to be given thereby to the upper heritors to prevent poaching; period up to which rod-fishing might be allowed, *Davidson* 347-349. 409, 410; *Adam* 592-595; *Russel* 753-759; *Young* 884-886; *Dunbar* 975; *Marquess of Ailsa* 1080-1086. 1088; *Stewart* 1252; *Speedie* 1398, 1399; *Cathcart* 1606-1608; *Grant* 1746. 1759; *Dougall* 2104; *Ffennell* 2968. 2722, 2723; *Weatherstone* 3178-3181; *Tytler* 3381, 3382—Slight extent to which the spawning fish are destroyed save by poachers, *Adam* 596-598—Exceedingly small proportion of salmon killed by the rod as compared with the number killed by nets, *Russel* 753—Considerable number of fish killed by witness with the rod, *Dunbar* 995—Apprehension of the capture of many spawning salmon if the season for rod-fishing be extended, *Johnston* 3464-3466.

Recommendation by the Committee that rod-fishing do continue till the 15th of October; but that no salmon, the produce of any fishing in Scotland, be sold after the 1st of September, *Rep. p. xi.*

Ross-shire, &c., Coast. Particular places where fixed engines are used in Ross-shire, Morayshire, &c., adverted to as diminishing the supply of fish in certain rivers, *Young* 853-863.

Royal Fish. In Scotland the salmon is not, in the proper sense of the word, a royal fish, *Lord Advocate* 1, 2.

Russel, Alexander. (Analysis of his Evidence.)—Editor of the "Scotsman" Newspaper; has devoted considerable attention to the subject of the salmon fisheries, 669, 570—The fisheries are generally in a declining state, and have been so for the last fifteen or twenty years, 671, 672. 773-775—The introduction of fixed machinery on the sea-shore as one of the two main causes of the decline, 673—The late fishing in the autumn is the other chief cause, *ib.*

Evidence in favour of the rivers being closed earlier; about the 26th August should be the latest time of fishing, 674. 731-733. 768, 769. 795-803—Opinion that fixed machinery on the shore is injurious and unfair, and should be suppressed, 674—Cruives in rivers are doubtless legal, but their suppression would be no hardship if fixed engines in the sea were suppressed, 675—Way in which stell nets are used; their effect in barring the passage of the fish, 675-678—Injurious effect of stake and bag nets in driving the fish out to sea, 676. 679.

Much greater expense in working stake and bag nets than the net and coble, 679, 680. 682-684—Injury to the fish when knocked about in the nets in rough weather, 681. 685—Difficulty at times in applying the Saturday slap to bag nets, 683, 684—Deterioration in the quality of the fish after they have been some time in the rivers, 685, 686—Habits of the salmon to approach the mouths of the rivers along the coast, so that the prohibition of fixed engines merely near the mouths of the rivers would not be a sufficient protection, 687-695.

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eight miles from its mouth, 738—Long interval after net fishing in the Tweed before the salmon are found up the river where the rod fishing commences, 745-748—The cruives kill a good many fish, and also obstruct their passage, 749, 750—Effect of sheep-washing and of sheep-dipping upon the fish, 751, 752.

Importance of rod fishing being permitted for some time after the close of net fishing, 753-759—Every owner of a fishery should be required to contribute towards the assessment for water bailiffs, &c., 760-764—Doubt as to the propriety of the river owners being called upon to pay anything as compensation for the abolition of fixed engines on the coast, 765-768—Good result of the abolition of stell nets and cairn nets in the Tweed, 768-772.

Suggestion that there be an increase of penalty to poachers for repeated offences, 779, 780—Reference to the practice on the Tweed, &c. in regard to the maintenance in prison of men convicted of poaching, 781-783—Under the Tweed Act, but not under the general law, a water-bailiff can apprehend, without a summons, any one whom he sees taking a fish in close time, 784, 785—Advantage of some penalty for the possession of spawning or foul fish, 788-791.

Suggestions with a view to diminishing the expense of river fishings, that is, by an agreement among the proprietors about regulating the nets, &c., and apportioning the proceeds, 792-795—Successful result of the course pursued by the Duke of Richmond in removing the stake nets, and in having an earlier close time in the Spey, 795-798. 802, 803—More destructive character of late years of the fixed nets used in the sea, 799-801—Great increase in the price of salmon throughout Scotland, but not in London; this is partly owing to the increased facilities of transmission, 803-805.

Rutherford, Thomas. (Analysis of his Evidence.)—Salmon fisher and water-bailiff at Perth, 1400-1402—Very much greater expense of fishing by stake and bag net than by net and coble, 1403, 1404—Greater efficiency of the stake and bag net than of the net and coble, 1405, 1406—Effect of the stake and bag nets round the coast to diminish the fishing in the Tay, 1407-1415—There is hardly any poaching in the Tay, 1416—Destruction of the salmon fry by liquids from the bleach fields, 1417, 1418—The fish come to the mouths of the rivers from the north, fish of different size or character going to different rivers, 1419-1425—Improvement through the close time in the Tay commencing on the 26th August, 1426. 1428—Improvement of the fishing commenced about the middle of January, 1427-1434.

Damage to the fish in the nets during rough weather, 1435—Except in stormy weather, the Sunday slap could be observed in stake and bag nets, 1437—Heavier salmon than usual taken this year in the Tay through the earlier closing time, 1438-1442—Cruiwe dykes should be abolished, 1444—Power of witness as bailiff to apprehend, under the Tay Act, any poacher, the fishing proprietors being liable for the maintenance in prison, 1445-1451—Doubt as to the effect of the artificial breeding of salmon in the Tay, 1452.

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Sailors. Importance of the sea fisheries as supplying valuable seamen for the navy, *Brown* 1916, 1917—Limited extent to which any of the men employed by witness join the navy or mercantile marine, *Gray* 3056-3066.

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Sea-coast Fisheries. As regards salmon fishing in the sea, it was for a long time undecided how far there was any such right at all, *Lord Advocate* 59.

Steps taken by witness to establish the title of the Crown to the sea-coast fishings, in consequence of the decision of the House of Lords last Session, that where the coast proprietors had no existing title, the fishings belonged to the Crown, *Howard* 90—Result of circulars issued by witness to 345 proprietors where titles required investigation; hitherto only twenty-nine leases for short periods have agreed to be taken from the Crown, *ib.* 90, 98, 99—About 115 titles are considered to be established, *ib.* 90—There are 180 cases still under investigation, *ib.*—In 127 cases there has been no answer to the circular, *ib.*—Different ways in which those rights which have been established have been obtained, *ib.* 91, 92—Grant of five lenses of sea fishings in 1846, at rents from 2 *l.* 10*s.* at the lowest, to 20*l.* the highest, *ib.* 94-97. 108, 109—Leases of coast fishing are in the first instance offered to the *ex adverso* proprietors, *ib.* 110.

Origin of the first inquiry on the part of the Crown into the question of its right to the salmon fishings in the sea, *Watson* 126—Reference to the terms upon which five Crown leases were granted in 1846, *ib.* 126-128—Explanation relative to a return which witness delivers in, of any rights belonging to the Crown along the sea-shore which have been

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been granted since the Union; this was given in evidence in Gammell's case, *Watson* 128, and p. 28-32—Copy of the circular addressed from the Office of Woods, &c. in 1859 to those exercising the right of fishing along the coast, *Watson* 134—Particulars as to the result of the foregoing circular, so far as proceedings hitherto; further information promised on the subject, *ib.* 135-147. 153.

Advice of Crown council in 1848 as to leases to being offered to *ex adverso* proprietors; this course has since been followed, *Watson* 155, 156. 181—Witness delivers in a list of leases granted by the Commissioners of Woods in 1848, for a term of eleven years from Martumas 1847, *ib.* 190—Also a statement of the renewals of the foregoing leases, *ib.*—Also a list of persons who have agreed to accept leases from the Crown for the three seasons, of 1859, 1860, and 1861, under certain conditions, *ib.*—Statement of the number of titles now under investigation, and the number of cases in which the circular of 1859 has not been answered; reason for not furnishing the number of established titles, *ib.*

Different tenures under which sea fishings are held, *Brown* 1838-1840—The leases from the Crown under which witness fishes on the coast are all terminable in 1861, *Hector* 2787-2792. 2795, 2796—There are a good many instances of the grant of sea-coast fishings from the Crown, *Lord Advocate* 4121, 4122. 4133.

Reference by the Committee to the state of the law, and to the titles existing in regard to fishings on the coast; the fishings upon a considerable extent of the coast still belong to the Crown, *Rep.* p. iv.

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Sea Lice. Doubt as to many fish being driven to the rivers by the sea lice, *Young* 881-883—Witness does not believe that it is the desire to get rid of the sea lice which impels the salmon to seek the rivers, *Ffennell* 2574, 2575—The sea lice attached to salmon do not cause them much inconvenience; different varieties of these insects, *Huxley* 3754-3757. 3765, 3766—Good condition of the salmon when the sea lice are attached to them, *ib.* 3757.

Seals, &c. Considerable destruction of salmon when in the stake and bag nets by seals, &c., *Adam* 611-614; *Dunbar* 971; *Speedie* 1397; *Dougall* 1983-1987. 2079, 2080; *Ffennell* 2498—Doubt as to the nets attracting seals and porpoises, *Johnston* 3429, 3430.

Select Committees of the House of Commons in 1824 and 1836. Reference to the inquiries by the Committee appointed in 1824 and 1836, and the measures then recommended, *Rep.* p. vi.

Severn, The. The character of the Severn salmon is probably higher than it deserves, *Ridpath* 1107.

Shannon, The. Very valuable fishery on the Shannon, called the Lax Weir, under lease from the corporation of Limerick, *Ffennell* 2352, 2353—Satisfaction given by the alteration of the close season for the Shannon, which now commences on the 12th August, *ib.* 2385.

Sheep Washing. Doubt as to sheep washing being destructive to the salmon in the rivers, *Russel* 751, 752; *Dunbar* 1011, 1012—Destructive effect of sheep-washing in small rivers, *Cathcart* 1521, 1522.

Shin, The. Opinion as to the fair working of the cruives in the Shin and other rivers, *Hogurth* 438-509—Practice as to the mode of fishing the Shin, which river witness now occupies from the Duke of Sutherland, *Young* 816-827. 841-849—Adequate protection of the Shin from poachers, *ib.* 845-848.

Size of Salmon. Great falling off in the size of salmon; cause of this, *Davidson* 393-365. 405; *Adam* 608, 609—Witness has fished for nearly 50 years, and he never killed or saw a 50 lb. salmon, *Young* 871—The largest salmon received by witness this year was one of 50 lbs. from the Tay, *Ridpath* 1150, 1151—Heavier salmon than usual taken this year in the Tay, through the earlier closing time, *Rutherford* 1438-1442—Witness finds no decrease in the weight or size of salmon taken in his nets, *Hector* 2774—Belief that the larger fish of one season do not re-appear, save in small numbers; few fish in the third year are taken; doubts as to what becomes of them, *Hector* 2869-2878; *Gray* 3026-3030—The enormous destruction to which salmon are exposed, chiefly accounts for fish of a very large size not being found, *Huxley* 3724-3729.

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Skye, Isle of. Particulars relative to the fishings in Skye, as held by witness from Lord Macdonald, *Johnston* 3407-3414.

Smoults or Salmon Fry. Extensive destruction of salmon fry or smoults at the mill races in the Forth; suggestions for preventing this, *Anderson* 1296-1304—Smoults are constantly taken in the sweep nets in the rivers, but never in the stake or bag nets in the sea, *Dougall* 1923-1934. 1975. 2005—Sufficiency of the space of two inches between the bars of the cruive wires in Ireland for the passage of the salmon fry, *Ffennell* 2425-2428—Great destruction of fry at one time in Ireland; measures taken to prevent this, *ib.* 2595-2601—Stringent provisions should be adopted for preventing the destruction of fry in the Scotch rivers, *ib.* 2600—The difference between the parr and the smolt is merely in point of age, *ib.* 2733, 2734.

The smolt remains in the sea about six weeks before it returns as a grilse; immense increase of size during this period, *Quekett* 3664-3667—Peculiar development of the milt in the parr or fry of the salmon, *ib.* 3667-3669—The young of the salmon are apt to vary to the extent of twelve months in the time which it takes them to attain the state of grilse; conflicting evidence on this point, *Huxley* 3720-3723—Evidence that in some cases a smolt is a fish of the same year, *ib.* 3722, 3723. 3730.

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Solway, The. Immaterial character of the Act for the Solway in 1804, *Lord Advocate* 57—Reason for the Solway having been excepted from the provisions of the Act of Queen Mary in 1563, *ib.* 57, 58—Exception of the Solway, Firth, and the Tweed, from the old law relative to the use of fixed engines in the sea; inference therefrom, *Tytler* 3367, 3368—Regulation of the Solway fisheries, and of the close time, &c. by certain local Acts, *Rep. p. v, vi.*

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1. *Habits of the Salmon as to the Time of Spawning, and as to the Ascent of the Rivers for the purpose.*
2. *Question as to Salmon spawning in the Sea as well as in the Rivers.*
3. *Spawning Beds.*
4. *Great Importance of a Protection of the Spawning Fish.*
5. *Number of Ova in each Spawning Salmon.*
6. *Considerable Waste or Destruction of the Ova.*

1. *Habits of the Salmon as to the Time of Spawning, and as to the Ascent of the Rivers for the purpose :*

More or less spawning state of all the fish ascending the rivers, *Davidson* 396-398—Plenty of fish have not spawned by the 1st February, *Hogarth* 563—After the beginning of February salmon but rarely spawn, *Adam* 584—Habits of the salmon in regard to the time, &c., of spawning, *Brown* 1795-1800—Witness considers that salmon frequently ascend the rivers for other purposes besides spawning; instances of their returning to the sea without having spawned, *Bissett* 2174-2184. 2209-2217.

Various times at which salmon enter the rivers for the purpose of spawning; instances of salmon, in excellent condition, entering the rivers in December and January, and not spawning till the following November or December, *Ffennell* 2537-2539. 2555-2573—The great bulk of spawning in all rivers occurs in December and January, *ib.* 2539—There is no doubt whatsoever but that salmon sometimes remain in the rivers for nearly twelve months before they spawn, *ib.* 2555-2570—Opinion that the impulse to seek the fresh water is caused by the germ getting to a certain state, *ib.* 2571.

Opinion that all the salmon do not seek the rivers in order to spawn, and that some are living in the sea, *Hector* 2746-2759; *Paul* 3543. 3548-3550. 3562. 3569-3571—Belief that salmon do not always enter the rivers for the purpose of spawning; the spawning fish do not go up till November or December, *Weatherstone* 3158-3163—Opinion that salmon ascend the rivers for no other purpose finally than that of spawning, although it probably is not a mere instinct to deposit their spawn which induces them primarily to return to the rivers, *Huxley* 3745-3753.

2. *Question as to Salmon spawning in the Sea as well as in the Rivers :*

Fallacy of the notion that salmon spawn in the sea, *Adam* 667, 668; *Young* 860; *Ffennell* 2576—Belief of many persons that salmon spawn in the sea; witness has occasionally caught fish in the sea quite ripe for spawning, but he is of opinion that the spawning takes place in the rivers, *Dougall* 2084-2097—Opinion that the salmon breed in the sea as well as in the rivers; authority for this opinion, *Bissett* 2228-2240; *Hector* 2754-2763. 2785, 2786. 2800-2802. 2827-2842. 2911-2918; *Johnston* 3439-3452; *Paul* 3536-3545. 3580-3588—There are such immense numbers of fish in the sea, that they cannot all ascend the rivers to spawn, *Hector* 2758. 2912—Circumstance of witness having seen two salmon spawning in the tide-way, *ib.* 2917, 2918.

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Witness does not believe that salmon breed in the sea, *Quekett*, 3635, 3636. 3662, 3663—There is no evidence that salmon breed in the sea, *Huxley* 3717-3719—Witness believes that salmon, like smelts, breed in the sea as well as in rivers; has fished in the North Sea, but never caught a salmon there, nor saw one, *Newby* 3683, 3684. 3709-3712. 3714—Witness feels certain that salmon spawn only in rivers; they require aerated water, *Foley* 3946-3949.

3. Spawning Beds;

Much greater capabilities of some rivers than of others in offering facilities for spawning; habits of the salmon hereon, *Hogarth* 541-548—The spawning beds are much injured by the sweep nets; this is the case more in the Esk and other rivers than in the Tay, *Dougall* 2003-2006. 2022-2028. 2102, 2103.

Slight injury, if any, done to the spawning beds in Ireland by nets being drawn over them, *Fennell* 2459-2465. 2591-2594—Shallow beds of coarse gravel are those in which salmon most like to spawn; they go up very small streams in search of such beds, *ib.* 2577—Frequently conflicts between salmon for spawning beds; instance of this, *ib.*—Importance of extending the spawning beds; instances in Ireland of the great success of new and artificial breeding grounds, *ib.* 2578-2590—Advantage which has arisen in Ireland from a suggestion by witness for preventing the spawning beds in mountain rivers from being left dry or uncovered, *ib.* 2611.

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Expediency of the fish being molested as little as possible after they enter the rivers, as they only do so for the purpose of spawning, *Grant* 1674-1676. 1755—So long as the rivers are taken care of the continuance of the stake and bag nets in the sea will not cause the destruction of the salmon, *Brown* 1895—The chief thing is to take care of the breeding fish, *Dougall* 1966. 1971, 1972; *Hector* 2852. 2919-2923; *Gray* 3046-3055; *Johnston* 3456-3463—Ample supply of breeding fish in the rivers if they were properly protected, *Johnston* 3459-3463; *Paul* 3553-3567.

5. Number of Ova in each Spawning Salmon :

As there are about 20,000 eggs in each spawning salmon, a few fish would amply stock the rivers, *Dougall* 1971, 1972; *Quekett* 3653; *Huxley* 3758-3761.

6. Considerable Waste or Destruction of the Ova :

Several causes through which there is a great waste or destruction of the ova and the fry, so that, although there are many thousands of ova in one fish, a few fish will not suffice to stock a river, *Fennell* 2604, 2605. 2611—Doubt as to the spawn being destroyed by frost, *ib.* 2912, 2913—Great difficulty in covering the ova so as to prevent its being carried away by the stream, *ib.* 2737.

See also *Artificial Breeding of Salmon.* *Close Time.* *Poaching.* *Rod-fishing.* *Upper Heritors on Rivers.*

Speedie, Alexander. (Analysis of his Evidence.)—Fishmonger at Perth: is lessee of some fishings on the coast north of Montrose, which are carried on by means of stake and bag nets, 1332-1339—Description of the stake, or rather fly-net, used by witness; the bag-nets are carried out from it as an extension, 1338-1346. 1352, 1353—Much greater expense of stake and bag-net fishing than of the net and coble, 1347, 1348—The net and coble may be used in many places in lieu of stake or bag nets, but not where the coast is rocky, 1349, 1350. 1376-1378. 1385, 1386.

Witness would be very glad to have the stake and bag nets abolished, and the net and coble only used, 1351. 1394. 1396—Loss of bag nets in storms, 1354—Witness's coast fishings have hardly diminished within the last six years, 1356-1357—Diminution in the fishings in the Tay, where witness is a lessee; effect of sundry stake and bag nets on the coast in causing this, 1358-1375—The fish in the upper part of the Tay are well protected in the close season, 1379, 1380—Increased price obtained for Tay salmon, whilst the number has decreased, 1381, 1382.

Advantage if the close season were from the 26th August to the 1st January, 1387, 1388. 1393-1396—Considerable quantity of salmon sent by witness to the London market, 1389—Improvement if cruives were disallowed, 1390—Destruction of a good many salmon when in the nets by seals, 1397—Approval of rod fishing being allowed some time longer than net fishing, provided cross-line fishing is not allowed, 1398, 1399.

Spey, The. Witness was for a long time lessee of the Spey fishings, *Hogarth* 460. 462, 463—Doubt as to the improvement in the Spey fishing since witness gave it up, being owing to the abandonment of the stake and bag nets, *ib.* 476-487—When witness had the Spey fishings, the cruives were worked fairly with a Saturday slap, *ib.* 497—Successful result of the course pursued by the Duke of Richmond in removing the stake nets, and in having an earlier close time in the Spey, *Russel* 795-798. 802, 803—Great falling off at one time in the fishings through the extensive use of stake and bag-nets, *Dunbar* 950. 973-977—Importance of protecting the upper waters, *ib.* 978, 979—Injurious prevalence of pike in the river, *ib.* 983.

Decrease in the fishings of the Spey up to 1859 from over-fishing in the river and on the sea-shore; situation of witness's fishings adverted to hereon, *Grant* 1622-1635—Molestation of the salmon by the rafts coming down the river, *ib.* 1652-1655—Sufficient fish for breeding purposes now enter the river, but they are intercepted before reaching the spawning beds, *ib.* 1657. 1755—Diminution of poaching through the measures taken by the Duke of Richmond, *Brown* 1801—Witness has heard of 800 or 1,000 salmon being taken in the river at one haul, *ib.* 1809.

Witness delivers in a return of the number of salmon, grilse, and trout caught in the Spey in each of the years 1851-59, that is, since he has had the fishing in his own hands, *Duke of Richmond*, 4152.

See also *Fiddick, The.*

STAKE AND BAG NETS :

1. *Date of Introduction of Stake and Bag Nets on the Coast.*
2. *Their Legality considered.*
3. *Efficiency of this Mode of Fishing.*
4. *Expense.*
5. *Effect upon the Produce respectively of the Sea Coasts and of the Rivers.*
6. *Question as to their frightening the Salmon off the Coasts.*
7. *Ireland.*
8. *Their Prohibition suggested and opposed.*

1. *Date of Introduction of Stake and Bag Nets on the Coast :*

Introduction about 1822 of the system of fishing by bag nets, *Lord Advocate* 58; *Jopp* 253, 254; *Russel* 700—Stake nets were introduced somewhat anterior to bag nets, *Russel* 699—Stake and bag nets were established in witness's fishings about 1820, *Gray* 2970, 2971—For the sea witness fishes with stake and bag nets; there were some stake nets in use in 1816, *Johnston* 3391-3394—Grounds for the opinion that a net fixed by stakes in the sea is not a modern invention, *Lord Advocate* 4118, 4119.

2. *Their Legality considered :*

Right of lessees under the Crown to erect a fixed engine in the sea without the express provision of the Crown, *Watson* 165—Doubt as to the proprietors of the sea-coast fisheries having a legal right to use stake and bag nets; case of *Lord Kintore v. Forbes* adverted to hereon, *Jopp* 200-213. 252—Reference to the decision of the courts in 1828 as establishing a right to erect bag nets, &c. in the sea, *Hogarth* 431-433—Statement showing that stake and bag nets are contrary to the whole spirit and aim of the salmon laws, *Russel* 696-720—Mere omission of the law that fixed engines on the coast were not prohibited, *ib.* 704. 766—Doubt as to its being inconsistent with the law to prohibit stake and bag nets, *Dunbar* 983-986—Belief that the proprietors of stake-net fishings have no grant from the Crown, *Cathcart* 1556-1562—Different enactments in former years as to the use of nets of different kinds and of cruives, *ib.* 1564, 1565.

Witness has an old charter from the Crown for his fishings; the date is older than the time of introduction of stake nets, that is in 1797; doubt as to the mode of fishing previously, *Dougall* 2056-2063—Established right of persons by a grant from the Crown, under a charter or a lease, to take salmon in the sea by any means they please, *Paul* 3623-3626—Right of grantees of salmon fishings in the sea to fish by any means they please, unless limited by the express terms of their charters; the Crown cannot interdict, *Lord Advocate* 4103, 4104. 4121-4124. 4149-4151.

The Committee refer to past statutes, as showing that fixed nets are not illegal on the sea coast, *Rep. p. v.*

3. *Efficiency of this Mode of Fishing :*

Greater efficiency of the stake and bag nets than formerly, *Russel* 799-801; *Young* 837; *Cathcart* 1534—Description of the stake or rather fly-net used by witness; the bag-nets are carried out from it as an extension, *Speedie* 1338-1346. 1352, 1353—Greater efficiency of the stake and bag net than of the net and coble, *Rutherford* 1405, 1406—Stake and bag nets are essential to the proper fishing of the coast, *Grant* 1683, 1684. 1748—Greater probability of the salmon escaping the stake nets than the bag nets, as the latter go into deeper water, *ib.* 1767-1774.

Statement

Report, 1860—continued.

STAKE AND BAG NETS—continued.

3. *Efficiency of this Mode of Fishing*—continued.

Statement that the stake nets fish only twelve hours out of the twenty-four, or, in fact, only three days in the week, *Brown* 1811—Stake nets fish for about sixteen hours out of every twenty-four, *Dougall* 1935—Bag nets are sometimes so placed as to fish at all times of the tide; short periods in the day for which witness's bag nets are in operation, *ib.* 1936-1938. 1941—Witness considers that stake and bag nets are a great improvement upon previous modes of fishing; they take the fish in better order, *Gow* 2110, 2111.

Witness entirely dissents from the argument that the use of stake and bag nets was expedient, in order to increase the capture of the fish, *Ffennell* 2683—Previously to 1827 witness used the net and coble; since that period he has used bag and fly nets, and has taken a much larger quantity of fish, *Hector* 2739-2747. 2765-2784—Number and depth of the bag nets used by witness; they do not intercept the salmon when swimming very low, *ib.* 2776, 2777. 2803-2817—Those that swim in deep water are not caught in witness's bag nets, the depth of which is about sixteen feet deep, *Gray* 2986-2990—Number of bag nets used by witness; increase since he first commenced, *ib.* 3016-3019—Way in which witness's bag nets are placed one outside the other; depth and distance to which they go, *Johnston* 3431-3438; *Allen* 3862-3868. 3898, 3899.

4. *Expense* :

The cost of a bag net is from 12*l.* to 16*l.*, *Adam* 626—A stake net does not cost quite so much, *ib.* 627-629—Doubt as to the number of bag nets in use continuing to be remunerative, *ib.* 630, 631—Frequent loss of nets in storms, *Adam* 632; *Speedie* 1354—Much greater expense of fishing by stake and bag nets, than by net and coble, *Russel* 679, 680. 682-684; *Speedie* 1347, 1348; *Rutherford* 1403, 1404; *Cathcart* 1585; *Grant* 1765, 1766—Expensive character of bag and stake-net fishing where the coast is rocky, *Young* 836—Considerable expense of bag-net fishing, *Dunbar* 967-970; *Gray* 3020; *Foley* 3938.

Much greater quantity of fish taken by the bag and stake nets, than by the net and coble, so that the former are not the more expensive, *Brown* 1807-1809. 1867, 1868 1885, 1886.

5. *Effect upon the Produce respectively of the Sea Coasts and of the Rivers* :

Value of sea fishing since the introduction of bag nets *Lord Advocate* 59—The introduction of fixed machinery on the sea-shore is one of the main causes of decline in the river fisheries, *Davidson* 278-290; *Hogarth* 434-438. 511. 534-536; *Adam* 575-578. 605, 606; *Russel* 673; *Young* 811—Great increase since 1828 in the use of bag nets and stake nets, and explanation thereby of the falling off in the river fisheries, *Hogarth* 434-438. 511. 534-536—Probability of the proprietors of stake and bag nets being the first to suffer by the decline of the fisheries, *Russel* 721, 722—Instances of bag and stake nets having been discontinued, because of the great falling off in the number of fish, *Young* 828-834.

Question as to the stake and bag nets having materially decreased the breed of salmon, *Brown* 1786, 1787. 1789-1795—Statement showing that in certain rivers there has been an increased take of fish after the introduction of stake and bag nets on the coast, *Dougall* 1965—Too many fish are net, and cannot be killed by stake or bag nets; there are still an ample number for stocking the rivers, *Hector* 2880-2886. 2889. 2903. 2907-2910. 2919-2922—The fish if not taken in the sea, would equally be intercepted by sweep nets in the mouths of rivers, or by cruive dykes, so that a greater number would not ascend to the spawning beds even if there were not stake and bag nets, *Gray* 3087-3100. 3111.

Instances cited by the Committee in proof of the conclusion that the use of fixed nets in the sea has caused a great decline in the river fisheries, *Rep. p. viii*—Sundry causes other than the use of stake and bag nets assigned for the decreasing produce of the rivers, *ib.* ix.

6. *Question as to their frightening the Salmon off the Coasts* :

Injurious effect of stake and bag nets in driving the fish out to sea, *Davidson* 290-309; *Hogarth* 438-442; *Russel* 676. 679—Stake nets do not frighten the fish away altogether, *Brown* 1847—Stationary nets do not alarm the fish, whilst nets in motion alarm them very much, *Dougall* 1942—Fallacy of the notion that fixed nets frighten away the salmon, *Bissett* 2290, 2291; *Paul* 3627—Instance of the effect of bag nets in scaring away the fish, *Foley* 3940-3945. 3956-3961.

7. *Ireland* :

Frequent disturbances previously to 1842 upon the question of erection of stake weirs and bag nets; injury to the fisheries before this question was settled, *Ffennell* 2349—Restrictions under which stake nets and bag nets were legalised in Ireland by the Act of 1846.

STAKE AND BAG NETS—continued.

7. Ireland—continued.

1842, *Ffennell* 2354-2361—Provision by which stake nets are permitted, *ib.* 2360—Bag nets may be extended any distance into the sea, *ib.* 2362, 2363—Prohibition upon fixed nets, including stell nets, being placed within a mile seawards or inwards, *ib.* 2364-2367.

8. Their Prohibition suggested and opposed :

Suggestion whether it might not be expedient that in all future leases the Crown should prohibit the use of bag nets in the sea, *Lord Advocate* 69. 71-74—Doubt as to the necessity of prohibiting stake nets in the sea, *ib.* 74—Objection to the uncontrolled use of bag and stake nets, *Howard* 101—The river proprietors might combine and buy up the bag and stake nets in the sea, or regulate them as they liked, *ib.* 103—Opinion that by the prohibition of stake and bag nets in all future Crown leases the breed of salmon would not be improved whilst the revenue would be damaged, *ib.* 107—As regards the prohibition in Crown leases of stake and bag nets, the question must depend upon an Act of Parliament founded on the Report of the present Committee, with whom the settlement generally of this question rests, *Watson* 180—On account of the number of titles to sea fishings which have been acquired adversely to the Crown, the prohibition of bag nets in Crown leases only would not put things on a satisfactory footing, *ib.* 153-155. 188.

Stake and bag nets should be abolished altogether, *Jopp* 198, 199. 214-217; *Adam* 610. 616. 647-657; *Dunbar* 937-941. 955, 956. 983-986; *Speedie* 1351. 1394. 1396—Opinion that fixed machinery on the shore is injurious and unfair, and should be suppressed, *Russel* 674—Unless the fixtures on the coast be entirely prohibited a Bill will be of no use, *Young* 878. 913—Absence of injustice in requiring the removal of all fixtures on the coast; injustice rather in their being continued, *ib.* 879—Hardship in abolishing stake and bag nets where there is any title to use them, *Brown* 1882, 1883—In Scotland, as well as in Ireland, over fishing by means of fixed engines has been very injurious, and it would have been exceedingly to the benefit of the fisheries if stake and bag nets had never been allowed, *Ffennell* 2494-2501.

Outline of the evidence adduced in favour of the abolition of stake and bag nets, *Rep. p.* vii-ix—Also of the evidence in favour of their retention, *ib.* ix—Views of the Committee upon the question of their prohibition; regulations suggested failing such prohibition, *ib.* xi, xii.

See also *Aberdeenshire Coast.* *Ayrshire Rivers and Coast.* *Caithness Coast.* *Close Time,* 6. *Compensation.* *Cromarty Firth.* *Damaged Fish.* *Dee and Don Rivers.* *Employment.* *Estuaries or Mouths of Rivers.* *Fixed Engines.* *Foyle Fishings (Ireland).* *Kintore v. Forbes.* *Meshes of Nets.* *Ness and Beaully, The.* *Net and Coble.* *Seals, &c.* *Spey, The.* *Supply of Salmon.* *Weekly Close Time.*

Stell Nets. Way in which stell nets are used; their effect in barring the passage of the fish, *Russel* 675-678—Grant of the use of the stell net in rivers by some old charters, *Lord Advocate* 4125, 4126.

Stewart, Charles. (Analysis of his Evidence.)—Solicitor at Inverness; acts professionally for the proprietors of fishings in the Rivers Ness and Beaully, 1152-1155—Definition of the estuary of the Ness and Beaully; considerable distance from the mouths of the rivers at which it has been proposed in the Ness and Beaully Bill to abolish stake nets, 1156-1183—Probable effect of removing the stake nets at Fortrose upon the value of the fishing there, 1184-1190—Statement relative to the diminished value of the Four Cobles fishings in the Ness, whilst the value of the sea fishings has progressively increased, 1191-1200. 1204-1230.

Injurious effects of the stake and bag nets upon the river fishings; they should be abolished, 1196, 1197. 1225, 1226. 1254—Increased value of the sea fishings at Fortrose of Mr. Mackenzie, of Flowerburn; probable effect of these fishings in injuring other stake net fishings which have greatly fallen off, 1198. 1232-1235—Great falling off in the number of fish taken in the Beaully, 1201-1203—Course taken by the salmon in coming to the Beaully and Ness, and effect of nets at certain points along the coast to intercept them, 1236-1244.

Improvement if in the Ness and other rivers the close time commenced on the 26th August, 1246-1249. 1255—Limited injury to the fishings in the Ness through the breaking in of the Caledonian Canal, 1250. 1252, 1253—Rod fishing might continue till the 1st October, 1252—There is no cruive dyke upon the Ness, 1253.

Stonehaven. The fishings about Stonehaven are held for short terms under letters from the Commissioners of Woods, &c., *Adam* 621-625.

See also *Aberdeenshire Coast.*

Sunday

Report, 1860—continued.

Sunday Slap. See *Weekly Close Time.*

Supply of Salmon. Statement showing the quantity of Scotch salmon sent to the London market in each of the years 1834-59; great falling-off since the introduction of bag nets, *Jopp* 196-198. 247-251. 265-268—The fisheries are generally in a declining state, and have been so for several years past, *Hogarth* 423-426. 467. 512-514; *Russel* 671, 672. 773-775—The fish have fallen off generally in the stake nets this year, *Adam* 634—There is no doubt but the fishings are in a declining state, *Young* 810—Anticipation that in ten or twelve years there will be hardly any salmon left, *ib.* 830, 831—Unless a remedy be applied, and that soon, the Scotch fishings will be ruined altogether, *ib.* 863. 913.

Statement delivered in of the number of boxes of salmon received in London, of 112 lbs. each, for each of the years 1834-1859, *Ridpath* 1097—From the Severn and from Wales there is a pretty good supply, *ib.* 1097. 1110. 1112—Witness cannot account for the great fluctuation in the annual imports, *ib.* 1099—Few salmon which come to London from any English rivers, *ib.* 1108-1111. 1124, 1125—Doubt as to the quantity of Scotch or Irish salmon sent to Bristol, Liverpool, and other large towns, *ib.* 1140-1146—Variation in the size or weight of the salmon boxes from Scotland, *ib.* 1146-1148.

Larger and more regular supply on the whole through the use of fixed engines in the sea, *Brown* 1791. 1820-1832. 1852. 1860. 1891; *Hector* 2843-2851. 2902. 2932-2935; *Gray* 3000-3005; *Weatherstone* 3128. 3139-3142; *Johnston* 3417, 3418. 3471-3479; *Paul* 3551, 3552. 3561. 3630, 3631—Great fluctuation from various causes in the take of fish at different seasons, *Brown* 1851, 1852; *Dougall* 1944. 1946; *Hector* 2776-2781. 2797, 2798; *Gray* 3022-3024; *Johnston* 3469. 3470; *Paul* 3592—Inadequate supply of fish if all fixed engines were prohibited, *Brown* 1884. 1914, 1915—Occasional fluctuation in the yield of all rivers; on the whole, there is no decrease, *Bissett* 2241, 2242.

Larger and regular supply of salmon if stake and bag nets were done away with; instances of this in Ireland, *Fennell* 2501-2505—Table delivered in containing particulars relative to the number of salmon and grilse taken by witness in each of the years 1836-59; increase since 1836, *Hector* 2933. 2935—The present season has hitherto been a good one, *Gray* 3031, 3032—Statement delivered in, showing the quantity of grilse and salmon caught *ex adverso* certain lands over a series of years; increase of late years, *ib.* 3101.

Remarks by the Committee upon the question of the annual productiveness of the fisheries; conflicting evidence on this point, *Rep. p.* vii-ix.

See also *Close Time.* *Fixed Engines.* *Price of Salmon.* *River Fisheries.*
Sea Coast Fisheries. *Spawning.* *Stake and Bag Nets.*

Sutherlandshire. Mode of fishing the Sutherland rivers; falling-off in the production, and probable cause, *Hogarth* 486-496—Ruin, through the fixed nets, of the fishing on the north coast of Sutherlandshire, *Young* 832-835—The nets on the Caithness coast are altogether supplied by the Sutherland salmon, *ib.* 840.

Sweep Nets. Over-fishing of the lower portions of the rivers by means of the sweep nets, which are used immediately below the cruives, *Brown* 1869-1877—Witness considers that stake and bag nets are far less detrimental to the breed of salmon than are the sweep nets used in the rivers; grounds for this conclusion, *Dougall* 1923 *et seq.*—Difference between the sweep net and the net and coble or still net, *ib.* 1931, 1932—Suggested regulation as regards sweep nets, so as to admit of a free passage for the fish, *ib.* 1988. 1993-2008—Objection to the sweep nets in the Tay, &c., as being a scourging mode of fishing the rivers, and as being injurious to the sea fishings, *ib.* 2003-2006. 2022-2028. 2102, 2103—Injurious effect of sweep nets in rivers upon the breed of the fish, *Gow* 2160.

Arguments urged against sweep nets adverted to by the Committee, *Rep. p.* ix—Recommendation that the Central Board should be empowered to regulate the mode in which sweep and other nets may be used, so that they shall not present a continuous obstruction to the passage of salmon, *ib.* xi.

T.

Tarbet Ness Fishings. Great improvements between 1843 and 1845 in the Tarbet Ness fishings, where bag nets are used; falling off in the river fishings, *Gow* 2120-2131.

Tay, The. Reference to the Act in 1858 for the Tay, and the rivers communicating therewith; provisions therein in regard to close time, *Lord Advocate* 56, 57—Non-erection of stake or bag nets in the Tay since the legal decision upon the question, *Hogarth* 567-570; *Young* 875, 876—Effects in the Tay of the alteration in the closed time upon the time of spawning, *Young* 874—Good plan in the Tay for the protection of the river and the prevention of poaching, *Young* 900; *Speedie* 1379, 1380; *Rutherford* 456.

Tay, The—continued.

1416; *Dunn* 3277-3280—Diminution in the fishings in the Tay; effect of sundry stake and bag nets on the coast in causing this, *Speedie* 1358-1375; *Rutherford* 1407-1415—There are no cruives in the Tay, *Speedie* 1391.

Advantage in the close time in the Tay commencing on the 26th of August; local Acts for this purpose, *Rutherford* 1426. 1428; *Dougall* 1948. 2025; *Dunn* 3206-3210. 3220. 3255-3257. 3280; *Quekett* 3656-3661—Power of witness as bailiff, to apprehend, under the Tay Act, any poacher, the fishing proprietors being liable for the maintenance in prison, *Rutherford* 1445-1451—Witness uses stake and bag nets on the coast, and stell nets or cleek nets in the estuary, *Dougall* 1922—Increased rentals of the fisheries in the Tay; table delivered in hereon, *ib.* 1944-1949—Special regulations adopted by an association of the Tay proprietors as to close time, &c.; satisfactory operation thereof, *ib.* 1948-1961—Limits of the estuary of the Tay, within which stake and bag nets are prohibited, *Dougall* 1962, 1963; *Dunn* 3249-3254. 3258, 3259.

Statement as to the coast fisheries of the Tay producing only 300 *l.* a year, or so, whilst the river fisheries produce 12,000 *l.* a year, *Dougall* 1973. 1975, 1976. 1990—Objectionable modes of fishing in the Tay, which, rather than the stake and bag nets, are injurious to the upper fishings, *ib.* 1975, 1976. 2006. 2022, 2023—Extent of coast which witness considers to belong to the Tay fishings, *ib.* 1991, 1992—Trifling value of some of the fishings inside the estuary, *ib.* 2019-2022—Large increase since 1852 in the quantity of salmon taken in the river, *ib.* 2024, 2025.

The fishings have been benefited rather than injured by the improvements made in the navigation of the river, *Dougall* 2053-2055; *Dunn* 3222, 3223. 3267, 3268—Statements showing that the Tay fishings held by witness, and those held by several other lessees or proprietors, have largely increased of late years, whilst the fishings in the upper part of the river have greatly fallen off, *Dunn* 3200-3205. 3212-3214. 3249. 3263-3265. 3271-3276—Practice as to the use of sweep nets, and as to what is termed Bermoney boat fishing in the lower portions of the river; their effect in destroying the upper fishings, *ib.* 3213-3219. 3226-3232. 3260-3262—The salmon have on the whole increased, *ib.* 3273-3275.

Statement showing the rental of the Tay and its tributaries for each year, from 1828 to 1858, inclusive, *App. p.* 420-423.

See also *Artificial Breeding of Salmon. Size of Salmon.*

Templemore, Lord. Failure of an attempt of Lord Templemore to substitute a Scotch weir in Ireland for the timber-tide weir to which he was entitled, *Ffennell* 2537.

Thames, The. Reference to the circumstance of salmon not being now found in the Thames, *Paul* 3540-4542. 3544.

Thurso River and Bay. Proposal in the Thurso Bill not to abolish, but to regulate stake and bag nets on the coast, *Watson* 159—Withdrawal of the Thurso Bill adverted to, 171—Improvement in the fishing in Thurso River and Bay since witness first took a lease thereof from Sir George Sinclair; this is attributable to the non-introduction of stake and bag nets in the sea until about the end of May, after which time but few fish go up the river, *Dunbar* 919-937—Use occasionally of weir shot nets in the Bay of Thurso, *ib.* 932-936—Doubt whether on the coast near Thurso many fish are taken besides those which make for the local rivers, *ib.* 942-945—Spawning time in the Thurso adverted to, *ib.* 997, 998.

Timber-tide Weirs (Ireland). Very old right to a description of stake weir in Ireland, called a timber-tide weir, *Ffennell* 2537—Injurious operation of timber-tide weirs, *Foley* 3997.

Title. The question of title depends upon a grant from the Crown, or a prescriptive possession of some mode of fishing other than rod or spear fishing, for forty years, or from time immemorial, *Lord Advocate* 2-6—Question whether a title to a barony followed by possession of a salmon fishery, may not be a sufficient title, *ib.* 6—Statement that quite one-half of the salmon fishings in Scotland, on the sea coast, and in the rivers and estuaries, are held adversely to the Crown, so that it is very questionable whether any regulations in the Crown leases would be effectual in securing an improvement of the fisheries, *Watson* 153-155. 186—Difficulty in obtaining a list of all the charters which have been granted of salmon fishings throughout Scotland, *ib.* 157, 158—Nature of the facts necessary to be proved in order to establish a prescriptive title, *Rep. p.* iv, v.

See also *Crown, The. Gammell v. Commissioners of Woods, &c. River Fisheries. Sea Coast Fisheries.*

Trout. Diminution of the sea trout in the rivers in the same proportion as the salmon, and from the same cause, *Davidson* 406-408—Objection to the provision for the protection of bull trout and other trout, they being very destructive to the salmon fry, *Grant*

Trout—continued.

Grant 1778—Difficulty in fixing a different close season for trout and for salmon, *Ffennell* 2654. 2658—Particulars relative to the bull trout and the white trout in the Irish rivers; doubt whether the latter are injurious to the breed of salmon, *ib.* 2728-2732—Trout should be protected in Scotland as well as in Ireland, *ib.* 2735—Opinion that the brown trout are not very destructive to the salmon ova in the spawning beds, *ib.* 2736.

Destruction of smoults, and of salmon ova by the bull trout; probability of the salmon itself being also destructive, *Quekett* 3670-3673—The bull trout is not more destructive than many other carnivorous fish, *Huxley* 3762-3764—Suggested license for trout fishing in Ireland; injurious destruction of salmon fry at present, *Allen* 3835, 3836.

Tweed, The. Act of James the Sixth in 1606 for the regulation of the fisheries of the Tweed and Annan, *Lord Advocate's Ev.* p. 8, 9—Provision in an Act in 1830 in regard to close time in the Tweed, *Lord Advocate* 12-14—Particulars as to certain provisions in the Tweed Acts of 1857 and 1859, as to the limits of the mouth of the river, and the use of stake nets and bag nets, *ib.* 17-24—Provision as to close time in the Tweed Acts of 1859, *ib.* 24—Special provisions in the Acts of 1857 and 1859, about the prosecution of offences, *ib.* 25, 26—Repeal by the Act of 1859 of some of the sections of the Act of 1857, *ib.* 27-29.

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